

Oxford Brookes University

Impacts Assessment Unit

**Review of International Legal Instruments, Policies and
Management in respect of the
Wadden Sea Region**

**Final Report
For the Wadden Sea Forum**

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ASCOBANS	Agreement on the Conservation of Small cetaceans of the Baltic and North Sea
CAP	Common Agricultural Policy
CBD	UN Convention on Biological Diversity
CFP	Common Fisheries Policy
CWSS	Common Wadden Sea Secretariat
EC	European Commission
ECJ	European Court of Justice
ECoNett	European Community Network for Environmental Travel and Tourism
EIA	Environmental Impact Assessment
ESDP	European Spatial Development Perspective
EU	European Union
EUCC	European Union for Coastal Conservation
IAU	Impacts Assessment Unit –Oxford Brookes University
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
IROPI	Imperative Reasons Of Overriding Public Interest
IRWC	Inter-Regional Wadden Sea Co-operation
LMOs	Living Modified Organisms
MN2000	<i>'Managing Natura 2000 sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC</i>
Natura 2000	Sites designated under the Birds and Habitats Directives
NGOs	Non-Governmental Organisations
PSSA	Particularly Sensitive Sea Area
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
RBPs	River Basin Plans
TWSC	Trilateral Wadden Sea Co-operation
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SPA	Special Protection Area
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
WSP	Trilateral Wadden Sea Plan
WFD	Water Framework Directive

Review of International Legal Instruments, Policies and Management in respect of the Wadden Sea Region

EXECUTIVE SUMMARY

Introduction

This report sets out the findings of an independent study into the implementation and operation of key legislation and policies of relevance to the Wadden Sea region. The report also examines the implications for the management of the Wadden Sea of international policy and legislative initiatives. The Wadden Sea is one of Europe's most significant habitats and wildlife sites. It is protected by a number of international and European designations, including the Birds and Habitats Directives. In recognition of its importance, both internationally and regionally the three countries of the Wadden Sea – Germany, Netherlands and Denmark - have entered into a trilateral policy agreement to manage the area as a single ecological entity. This agreement is set out in the State Declaration and the Trilateral Wadden Sea Plan. The purpose of this study is to examine the implementation of key legal and policy instruments as they operate within and across the national and sub-national authorities within the region. In addition, the study examines the implications for the region of emerging and planned policy and legislative initiatives and the challenges facing the area from developments in policies for agriculture, fishing, tourism and other economic and commercial activities. The context of the review is that the Wadden Sea is a single ecological system that cannot be understood or examined on the basis of national or regional boundaries. To that end, and in the spirit of the trilateral agreement, the review will seek to identify a specific 'Wadden Sea perspective' in the approach used for the implementation of policy and legislative instruments. That 'perspective' is defined by decision-makers commencing their decision making processes with the State Declaration and the Wadden Sea Plan as the prime consideration. The review examines the implementation of legislative and policy instruments within that context and seeks to identify any barriers that may exist to the coherent and consistent implementation of legislation and policy across the Wadden Sea as a whole.

The study has been commissioned by the Wadden Sea Forum and was conducted by the Impacts Assessment Unit (IAU) of Oxford Brookes University. The IAU is a multi-disciplinary independent research and consultancy team within the University's Department of Planning and School of Biological and Molecular Sciences. The key tasks to be undertaken to complete the review were:

1. To review the Habitats Directive, the Birds Directive, the Water Framework Directive and the Environmental Impact Assessment Directive with regard to the Wadden Sea region;

2. To review other relevant European Community instruments and policies in particular, the Common European Agricultural, the Common European Fisheries Policy, policies relating to the industry and transport sector, tourism and social development with regard to their implications for the Wadden Sea region;
3. To review the concept of Integrated Coastal Zone Management, as recommended by the European Parliament, and its implications for the Wadden Sea region;
4. To review other relevant international legal instruments, policies and strategies relevant for the Wadden Sea region; and
5. To draw conclusions from the above and make recommendations for actions that strengthen the implementation and operation of environmental policy instruments in the region as a whole.

The study was primarily based upon a literature and documentary review, but the information from this review needed to be supplemented by a short email questionnaire to competent authorities and others involved in the implementation process. Further information has been gathered through discussions with the officers of the Common Wadden Sea Secretariat (CWSS) and others.

The Stade Declaration and the Wadden Sea Plan

The academic literature on policy and implementation theory identifies the following as key factors in successful policy implementation:

- the policy or legal instrument being implemented must have enforceable legitimate authority;
- the legitimate authority of regimes must be based on inclusive negotiation;
- there must be horizontal and vertical co-operation and co-ordination between implementation agencies;
- there must be consistency of decision-making; and
- agreements on implementation must have 'teeth' and be more than 'paper thin' to ensure compliance.

The overarching policy that is of prime consideration here is the Stade Declaration and the Trilateral Wadden Sea Plan (WSP). The Guiding Principle of the Trilateral Wadden Sea Plan is **'to achieve, as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way'**. The trilateral agreement has at its heart a commitment to treat the Wadden Sea as a single ecosystem and the recognition that activities outside of the designated protection areas can have implications for the sites themselves. Yet the area covered by the declaration and the WSP is limited, in the most part, to the protected areas. There would appear to be little if any policy commitment to consider the Wadden Sea

ecosystem within a wider regional social and economic context and this research has found little evidence to suggest that there is a definitive geographical area of a Wadden Sea 'region'. Furthermore, the Stade Declaration provides no legally binding instruments for the implementation of the WSP and it therefore lacks the enforceable legitimate authority necessary to be capable of fully integrated compliance.

The Key European Environmental Directives

The literature on implementation theory is also useful for the analysis of the implementation of the EUs key environmental Directives in the Wadden Sea region. Firstly, the basis of the Trilateral Wadden Sea Co-operation (TWSC) is the need to consider and manage the Wadden Sea region as a single ecosystem and habitat. This requires consistency of decision making across the region as a whole and this consistency can only be achieved through close co-operation and communication at the relevant level of decision making. Secondly, the EU environmental Directives should be seen as an integrated whole package of measure that have the single aim of implementing EU wide environmental policy. To achieve this it is necessary to have in place co-operative measures that ensure co-ordination between the agencies responsible for implementing the separate legislative requirements. Thus, an agency, or section within an agency, responsible for implementing the EIA Directive should consult with those responsible for implementing the Birds, Habitat and Water Framework Directives when making screening decisions. The review has discovered evidence that the required level of vertical and horizontal integration and co-operation necessary for the successful implementation of the three key Directives, in line with the spirit of the Stade Declaration, is not in place.

The WSP recognises the need for a common approach to the establishment of the areas to be covered by the Birds and Habitats Directives. In the Stade Declaration it states that the Ministers 'agree to work further towards a more coherent Natura 2000 area for the Wadden Sea' (para. 19). From the evidence of this review there is still much to be done in this respect. There is evidence that certain areas have been excluded from listing as candidate SACs for other than ecological reasons. This is likely to prove to be a mistake in the long run as such areas still enjoy protection under Article 6(3) and 6(4) of the Habitats Directive and any activities that are likely to cause significant adverse effects to such areas will undoubtedly find their way to the European Court of Justice (ECJ). However, for the Wadden Sea area to be managed as a single ecosystem it is essential for consistency in decision-making that there is consistency in the delimitation of Natura 2000 habitats. In terms of policy and legislative implementation, it makes more administrative sense for there to be a single identifiable geographical area that covers all of the relevant designations than very many areas covered by different designations. It also needs to be recognised that projects beyond the boundaries of the SPAs and candidate SACs, that are not within sensitive ecological areas themselves, can still result in significant adverse effects to the Natura 2000 sites. This is a point that is

again recognised by the Stade Declaration (e.g. at paragraph 13). Yet there appear to be instances where this point is not being acted upon in practice by competent authorities. The Ems River dam would appear to be such an example (EUCC Coastal News No 7, 23 June 2003).

The Habitats Directive makes non-mandatory provision for the development of a management plan for Natura 2000 sites. Such a plan would be of particular value in the trilateral circumstances of the Wadden Sea where the area is to be managed as a single ecosystem. The purpose of the management plan is to provide conservation measures that ensure the 'favourable conservation status' of the sites. Where 'existing or foreseen activities' are not conducive to the maintenance or enhancement of the conservation status, the management plan should include measures to reduce or remove the impact of those activities. In the context of the Wadden Sea, this would mean that a Natura 2000 management plan would have to consider the impact of all existing and foreseen activities including fishing, shipping, agriculture and other socio-economic activities that are likely to have an adverse impact on the protected areas and set targets for the removal of the adverse effects. For the WSP to develop into a Natura 2000 management plan, that was capable of removing the adverse impacts of existing or foreseen activities, it would be necessary for it to have the enforceable legitimate authority discussed at Section 1.3 of this report.

There are clear differences in the operation of the EIA Directive across the Wadden Sea region. Screening thresholds have been set at very different levels, the areas established as 'sensitive areas' for screening purposes have been based on different criteria in each of the three countries. There appears to be no common approach to scoping or public consultation. There would also appear to be a difference in the level of EIA activity between the three countries. Within the context of the trilateral co-operation to treat the Wadden Sea as a single ecosystem, it is necessary for there to be consistency in the approach to the application of the EIA Directive. This can only be achieved if decision making on key stages of the process is consistent. For this to be achieved there needs to be a common approach to the establishment of geographical areas where common screening and scoping 'rules' apply. Furthermore, the geographical coverage of screening and scoping 'rules' must reflect the fact that projects located outside of the trilateral co-operation conservation area may have wider effects that have impacts on that area. The discretion permitted by the EIA Directive would allow for the use of the 'sensitive area' concept to be used to define such geographical areas and thus allow for greater consistency of decision making. The Common Wadden Sea Secretariat and the IRWC could also contribute to greater consistency of decision making by involving them in the screening and scoping process. Yet, and this is a major surprise to the research team, CWSS and the IRWC play only a peripheral role in the implementation of this key Directive. The requirement to amend EIA legislation to transpose the terms of the Aarhus

Convention will offer the Member States of the Wadden Sea an opportunity to increase the role of the Secretariat and the IRWC in EIA procedures.

The implementation of the Water Framework Directive is at the early stages in the three countries of the Wadden Sea and is largely confined to the establishment of working groups, the development of guidance and establishing responsibilities. As with the other key Directives, implementation is largely a top-down process with the competent authorities largely led in their actions by national and regional tiers of government. There is a good deal of confidence within the authorities of the three countries of the Wadden Sea region that the WFD will be successfully implemented within the time-scale provided. There is widespread recognition that a harmonised and co-ordinated approach will be necessary and that this will need to be at all levels of government – horizontal and well as vertical - and across international boundaries. Yet, the implementation of the Directive remains largely based upon a national and regional approach and there is little evidence that a clearly defined Wadden Sea regional perspective is being used. The real success in implementing the WFD in the Wadden Sea region will come when it is seen by all parties as an opportunity to use the guiding principles of the State Declaration and the Wadden Sea Plan – that the Wadden Sea should be considered and managed as a single ecosystem – as the starting point for implementation, rather than something to be considered after adherence to national legislation.

The requirements of the WFD to integrate river basin management with the requirements of the Birds and Habitats Directives illustrates the need to see these key Directives as a whole package of measures intended to implement wider EU environmental policy. They should not be seen as individual pieces of legislation to be operated and considered separately. The EU Directives, particularly the Habitats and the WFD, include provisions for the development of management plans. There appears to be a real danger that management plans for the area will be largely limited to national and sub-national boundaries. This would represent a missed opportunity. The trilateral co-operation on the Wadden Sea provides an opportunity not available in almost any other area of Europe to ensure that these management plans are developed within a framework of a Wadden Sea perspective, rather than based on national priorities. Through the integration of the requirements of the key Directives it would be possible to produce a clearly identifiable geographically defined Wadden Sea region that would be based upon the same criteria in each of the three countries. In administrative terms alone, it would seem appropriate in these circumstances, to widen and strengthen the role of the CWSS to co-ordinate such an approach.

Integrated Coastal Zone Management

European work involving institutions, studies and demonstration programmes for ICZM has accelerated since the mid-1990s, leading to recommendations for ICZM and a Coastal Code

of Conduct, as well as guidance notes for the sectors involved. Internationally and in Europe, best practice principles have been developed and research into ICZM cases within the EU have led to maps of coastal systems, guidance, an analysis of policy instruments and some thoughts on public participation in ICZM. The trilateral agreements on the Wadden Sea provides a firm basis for the development of an ICZM strategy, but as can be seen from the best practice checklist, at 3.3.2 in the main report, many of the elements necessary to create such a strategy are not yet in place. One key requirement is that a definitive geographical area, that links the socio-economic and the conservation and other resources of the area, needs to be identified. The development of a Wadden Sea ICZM strategy, that covers the whole of the region, would face many challenges, not least of which would be the need for any strategy to have real teeth and the force of enforceable legitimate authority for its success. However, an ICZM for the Wadden Sea would also present many opportunities, including the close integration of the operation of the Birds, Habitats, EIA and WFD Directives, with other areas of European Environmental Policy, the principles of sustainable development and the key areas of commercial and economic activity in the area.

Community and International Legal Instruments, Policies and Strategies

From the review of developments in European and international policy and legislation, it is possible to conclude that the trend is towards increasing controls and for greater recognition of the need for international co-operation and action. This trend is taking place within a framework of structural changes in traditional industries such as farming and fishing and the reduction in European subsidies for these industries. These economic changes will undoubtedly produce pressure for action to regenerate the local economy, especially in the tourist and shipping industries. Both activities have the potential for negative impacts upon the conservation value of the Wadden Sea and will need to be carefully managed and monitored. The economic pressures on the Wadden Sea area will require the current co-operative agreements on its conservation and management to be substantially strengthened to ensure consistency of decision making, and to share benefits to conservation and economic interests. As will be noted from the review of EU and international policy and legislation, the IAU is of the opinion that the most effective way of dealing with all of these issues is through the development of a ICZM strategy for the Wadden Sea and its wider region.

Conclusions and Recommendations

This review has highlighted the very many challenges to the operation of international and European policy and legislation in the Wadden Sea region. The review of the key areas of EU legislation highlighted the difficulties that already exist due to the complex web of competent authorities involved and the seemingly lack of a real sense that they have a specific 'Wadden Sea perspective' when applying the legislation. For the policies and legislation to have real effect they must be implemented consistently. This research has established that there are areas where the key EU Directives are not being applied in the same way across the Wadden

Sea region as a whole. This is partly because of the 'top-down' approach to implementation and the apparent lack of cross authority co-operation at the local level, partly because of the discretion allowed by the Directives themselves, and partly because the Stade Declaration lacks sufficient enforceable legitimate authority. This lack of consistency in implementation does contradict the spirit of the Stade Declaration and the trilateral co-operation commitment to treat the Wadden Sea as a single ecosystem. The research team was particularly surprised, given the context of the Stade Declaration, that the Wadden Sea Secretariat are not, as a matter of course, consulted on all Habitats Directive Article 6 appropriate assessments and EIA projects that effect the area. The team was also surprised to learn that the development of the ICZM for Schleswig-Holstein did not involve the Wadden Sea Secretariat in anything other than a very peripheral role.

There appears to be little common approach to the designation of candidate sites under the Habitats Directive. This not only displays a lack of a specific 'Wadden Sea perspective' but also questions the commitment to the concept of Natura 2000 and the treatment of the Wadden Sea as a single ecosystem. The designation of the candidate SACs should be solely on ecological criteria and, from the maps at Appendix 1, this would appear not to have been the case in the Wadden Sea. This is an extremely short sighted strategy, as areas that meet the ecological criteria for designation remain protected under Articles 6(3) and 6(4) of the Directive. The Member States and competent authorities of the region should take the opportunities offered by the implementation of the WFD to more fully embrace the principles and spirit of the Stade Declaration. There should be a co-ordinated effort to see the three key Directives as part of a single package and ensure that they are implemented within the overall spirit of EU environmental policy.

There are a considerable number of issues, trends, policies and legal instruments that have the potential to influence the future of the Wadden Sea region. The main challenges come from the increasing development of and dependence upon tourism, as rural and coastal communities experience a decline in incomes from farming and fishing and other more traditional industries. This dependence on tourism will bring with it pressures for development that, if not properly managed, will have the potential for adversely affecting the wildlife interests of the Wadden Sea region. The main opportunities for the future of wildlife conservation stem from the increasing policy trend, both internationally and within the EU, for a much more sustainable approach to economic development. The commitment to sustainable forms of development, and the emphasis on strict enforcement of EU environmental legislation within the 6th Environmental Action Programme, should provide some reassurance to those who wish to maintain and enhance the ecological interests of the Wadden Sea. This study suggests that the best way to ensure that environmental and other interests' objectives are met is by the co-ordinated application of all relevant policies through the development and implementation of an Integrated Coastal Zone Management strategy.

This strategy could include the management plan requirements of both the Habitats Directive and the WFD and provide clear guidance on the consistent application of the EIA Directive. However, for such an approach to work all the parties involved must be committed to the best practice principles for ICZM, including the need for such plans to have real enforceable legitimate authority.

Recommendations

5.2.1 The recommendations set out below are divided into two sections. The first set of recommendations can be termed general or strategic recommendations and the second set are more specific.

Strategic

1) This research has highlighted the lack of region-wide enforceable legitimate authority for the Stade Declaration and Wadden Sea Plan. The consistent implementation of EU Directives across the region will continue to be weak so long as that authority is missing and it would be difficult, if not impossible, to fully implement an ICZM strategy without such authority. A key recommendation from this study must therefore be for the trilateral agreement to be amended so that the policies it seeks to be enforced have the 'teeth' to ensure compliance. The establishment of such a regime will undoubtedly be politically sensitive and controversial, but in the long term it will be in the interests of all three Member States to co-operate at that level. An agreement to manage the area within a framework of enforceable legitimate authority will ensure that there is a consistent approach to decision making, that the interests of the Wadden Sea come before the administrative interests of individual authorities and that the needs of the social and economic interest of the region are taken fully into account in an integrated and consistent way. The benefits offered by the integrated long term sustainable planning of ICZM will not be realised in the region unless it has the 'teeth' to ensure compliance. A new international regime for the region must be properly resourced and capable of achieving the following:

- coherence and consistency of approach across the region;
- transparency in decision-making;
- maximise the use of expert knowledge and knowledge of local circumstances;
- capacity to ensure observance of regulations; and
- speed of action.

2) In tandem with the establishment of enforceable legitimate authority there needs to be a geographically coherent area that links the protected sites with their inland hinterland. The basis for this area could be formed through the integration of the management plans required by the Habitats and Water Framework Directives and the use of the sensitive area concept from the EIA Directive. The area would need to be large enough to ensure that

projects or plans that are outside of designated areas, but have the potential to cause them harm, can be considered in a consistent manner with those that are within protected areas. This would form the basis for a geographically recognisable Wadden Sea 'region' and would be the area to be subject to an ICZM strategy.

3) As mentioned above, ICZM offers major benefits in securing the long term interests of the people of the Wadden Sea region and the wildlife and their habitats. The Wadden Sea Forum might consider recommending to the three governments that a tri-lateral ICZM strategy be developed in accordance with the EU's recommendations of 2002 on ICZM. The Wadden Sea Secretariat might also consider joint initiatives on the European Spatial Development Plan (ESDP) and ICZM, and to ensure that environmental considerations, broadly interpreted on an ecosystem basis, are integrated into any ESDP programmes. This programme should be based upon the best practice principles requirements provided in Section 3.4.2 of this report and, as referred to above, should be part of the development of a much stronger trilateral agreement. Also in line with the principles discussed at Section 3.2, the ICZM strategy should have policies that cover all sectors of socio-economic activity within the region (including agriculture, fisheries, tourism, service and industrial sectors, transport and construction) and these policies must deal with the interconnections between sectors and the strategy must explain how the policies will contribute to the sustainable social-economic needs of the region as well as the maintenance and enhancement of the ecological integrity and processes of the Wadden Sea. Furthermore, the development of an ICZM strategy will require the implementation of most of the recommendations of this report including: the identification of a coherent geographical area to be covered by the strategy, enforceable legitimate authority, public inclusion in line with the requirements of the Aarhus Convention, and be based upon a clear integrated research strategy

4) The Member States should continue to press for World Heritage Site status for the Wadden Sea. That status will bring with it further responsibilities for close co-operation over the management and development of the area that will more effectively be achieved through an ICZM strategy.

Specific

5) In the absence of an agreement to form a new authority for the area, and as a minimum, the Member States of the Wadden Sea region should take the opportunity provided by the transposition of the Aarhus Convention into European Community law to make the Wadden Sea Secretariat a statutory consultee on all projects likely to have significant environmental effects within the region. This would include consultation on appropriate assessments under the Habitats Directive, screening and scoping under the EIA Directive and full participation in the working groups established to implement the WFD. This would provide the specific Wadden Sea perspective into decision making that is currently lacking. The

Secretariat does not currently have the resources or the expertise to take on this role, however, as part of a changing role for the secretariat these resources should be provided.

6) The Natura 2000 designation should cover all of the areas designated as SPAs and candidate SACs. As the whole of the trilateral co-operation area has been recognised by the three Member States as a single coherent ecosystem, then, at the very least, all of the area covered by the Stade Declaration should become part of the Natura 2000 site. To achieve this it will be necessary to ensure that the boundaries of the current candidate SACs are widened to include those areas of the co-operation area not currently designated. Not only is this important in terms of the coherency of the ecosystem and consistency of decision making, it also makes much more administrative sense to have a single area covered by the Natura 2000 designations than very many areas with lots of artificial boundaries.

7) In recognition of the very many different types of designations – Ramsar, PSSA, SPA, SAC etc – and the trilateral agreement, there should be a Natura 2000 management plan for the Wadden Sea. The WSP forms an excellent starting point for the development of such a plan, however, in line with recommendation 1 above, the plan would need to have enforceable legitimate authority. To achieve that authority the plan would need to be an inclusive document that takes into consideration all interests in the region and this would be most effectively achieved if the plan forms part of an ICZM strategy.

8) There needs to be firm guidelines for the completion of appropriate assessments Under Article 6 of the Habitats Directive for the region as a whole. These guidelines should be based upon the EC's methodological guide but reflect the specific characteristics of the Wadden Sea. The guidelines would need to be subject to a consultation exercise with the competent authorities, relevant NGOs and other key interests.

9) The operation of the EIA Directive should be based upon a specific Wadden Sea perspective. That will require greater harmonisation of the screening, scoping and public consultation procedures within the region as a whole. There is a need for greater recognition that projects outside of the co-operation area have the potential to have significant impacts on that area. To this end there needs to be a widening of the 'sensitive areas' so that the inland areas are also considered to form an important part of the Wadden Sea. It will be for the authorities of the region to determine how this broadening of the sensitive area concept would be achieved. However, in line with recommendation 2 above, the EIA sensitive area could be harmonised with any used for an ICZM strategy. Once this area is identified, competent authorities could legitimately take the view that all Annex II projects within that area should be subject to EIA.

10) The basis of a Natura 2000 management plan, management plans for the RBDs under the WFD and a ICZM strategy is a full audit and assessment of the current ecological baseline conditions, the social and economic structure of the region and the impacts these activities have on the ecosystem. Currently it would appear that , particularly for the WFD, this work is being carried out separately at a local administrative level. The Member States have agreed through the State Declaration and elsewhere that the Wadden Sea is a single ecosystem. Such an ecosystem cannot be understood by examining its individual parts. Therefore there needs to be a much more integrated research programme that examines the linkages between economic activity and ecological coherence. The three Member States should jointly fund a fully integrated programme of research that will provide a firm basis for the ICZM strategy and the various management plans required by the key Directives.

11) The lack of a clear and specific Wadden Sea perspective on decision making suggests that there is a need for regular training of the competent authority officers who work on the Habitats Directive, EIA, and the WFD. This training should emphasise the ecological coherency of the area, the links between the sea and inland areas and the activities that have the potential to adversely affect the habitats.

Review of International Legal Instruments, Policies and Management in respect of the Wadden Sea Region

1. INTRODUCTION

1.1 Introduction

1.1.1 This Report sets out the findings of an independent study into the implementation and operation of key legislation and policies of relevance to the Wadden Sea region. The Wadden Sea area extends for some 500 km along the NW and W coasts of the Netherlands, Germany and Denmark. It is a highly dynamic shallow sea ecosystem with tidal channels, sands, mud flats, salt marshes, beaches, dunes, river mouths and a transition zone to the North Sea, the offshore zone. The area has been designated as a Particularly Sensitive Sea Area¹ (PSSA) and as a candidate World Heritage Site in view of its importance as a site for wildlife, and the habitats they occupy. The Wadden Sea is a Ramsar Convention² site and is also covered by the OSPAR Convention³. In addition to these international designations, as the Wadden Sea is one of Europe's most significant marine habitat and wildlife sites, it is also protected by the Birds and Habitats Directives. In recognition of its importance both internationally and regionally as a unique as a single ecological entity, the three countries of the Wadden Sea have, since the 1970s, agreed to collaborate on its protection.

1.1.2 The first trilateral governmental conference on the protection of the Wadden Sea was held in 1978 in The Hague, The Netherlands. The second Wadden Sea Conference took place two years later in Bonn, Germany. In 1982, at the third Conference in Copenhagen, Denmark the three countries agreed upon a Joint Declaration. The Joint Declaration sets out the intention of the three countries to co-ordinate activities and measures to implement a

¹ The International Maritime Organisation (IMO) has a sea area designation scheme for the protection of sensitive areas that are vulnerable to damage. These PSSA's are areas that are considered to be in need of special protection through action by the IMO. There are currently only five designated PSSAs in the world, one of which is the Wadden Sea. A PSSA can be protected from marine pollution by ships routing measures – such as an area to be avoided. The Wadden Sea PSSA was designated in October 2002 and is largely defined by its single ecosystem characteristics.

² Ramsar sites are designated under the 'Convention on Wetlands of International Importance especially as Waterfowl Habitat' (commonly known as the Ramsar Convention). In becoming parties to the convention the three countries of the Wadden Sea it accepted a commitment to designate suitable wetlands within their territory for inclusion in a List of Wetlands of International Importance, which is maintained by the International Union for the Conservation of Nature and Natural Resources bureau (IUCN). This convention ensures the conservation of wetlands and their flora and fauna by combining far-sighted national policies with coordinated international action. For the purpose of this Convention wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres. Many wetland fauna are migratory species whose conservation and management require international co-operation. The convention takes into account the fundamental ecological functions of wetlands as regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl who are ecologically dependent on wetlands.

³ The OSPAR Convention is a long term strategy for the protection of ecosystems and biological diversity, and for the promotion of the establishment and management of a system of marine protected areas (OSPAR MPA Programme). A Marine Protected Area, as per the definition developed by the World Conservation Union (IUCN) is "any area of the intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment" MPAs are used as management tools to protect, maintain, or restore, natural and cultural resources in coastal and marine waters. The establishment and management of a system of Marine Protected Areas, is an aim of the OSPAR MPA programme. Marine Protected Areas provide a range of benefits to coastal communities and the public by enhancing fisheries, safeguarding marine habitats and increasing economic opportunities.

number of international legal instruments in the field of natural environmental protection. The key instruments covered by the declaration were, amongst others, the Ramsar Convention and the EC Bird Directive.

1.1.3 The Common Wadden Sea Secretariat (CWSS) was established in 1987 in Wilhelmshaven, Germany, as the secretariat for the trilateral co-operation. Its primary task is to support, initiate, facilitate and co-ordinate the activities of the collaboration (Brochure 1995). The central policy document for co-operation is the Wadden Sea Plan. The Trilateral Wadden Sea Plan (WSP) was approved at the trilateral ministers' conference in Stade, Germany in 1997. The WSP embodies:

- A common delimitation of the Wadden Sea Area and the Wadden Sea Conservation Area;
- A common vision for the Wadden Sea, the guiding principle and the management principles;
- Common Targets and measures and activities to reach those Targets;
- And the implementation of a joint monitoring and assessment programme.

1.1.4 The geographical area covered by the WSP is the trilateral Wadden Sea Co-operation Area (the Wadden Sea Area, from Den Helder, The Netherlands to Blåvandshuk, Denmark). The boundaries of this area are 3 nautical miles offshore from the main sea walls or, where sea walls are absent, the spring-high-tide-water line, and in the rivers, the brackish-water limit including Ramsar and/or EC Bird Directive areas designated inland. The Wadden Sea Area covers approximately 15,000 km². The trilateral conservation area is situated within the Wadden Sea Area, and consists of the area under legal protection under national laws. It embraces primarily the Wadden Sea national parks and nature reserves. The Conservation Area covers an area of about 12,000km². A map of the Wadden Sea Area and the Conservation Area and its habitats is provided at Figure 1 of Appendix 1. The Wadden Sea Conservation Area and the major part of the Wadden Sea Area outside the Conservation Area have been designated as wetlands of international importance under the Ramsar Convention and as Natura 2000 sites under the EU Habitat and Bird Directives.

1.1.5 The Guiding Principle of the Trilateral Wadden Sea Plan is **‘to achieve, as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way’**. In addition, seven Management Principles have been adopted which are fundamental to decisions concerning the protection and management within the Wadden Sea Area for example, the Principle of Careful Decision-Making, and the Precautionary Principle. The trilateral conservation policy and management arrangements are directed towards achieving the conservation of the full range of habitat types that belong to a natural and dynamic Wadden Sea ecosystem. Each of these habitats requires the protection of natural dynamics, an absence of disturbance and an absence of pollution. These requirements can only be achieved through sound conservation and management practices.

The WSP seeks to maintain and improve the quality of the habitats by working towards achieving Targets which have been agreed upon for six habitat types: Salt Marshes, Tidal Areas, Beaches and Dunes, Estuaries, Offshore Areas and Rural Areas. Targets for the Quality of Water and Sediment are valid for all habitats. In addition, supplementary Targets for Birds and Marine Mammals have been adopted, as well as Targets for Landscape and Cultural Aspects.

1.1.6 The purpose of this study is to examine the implementation of key legal and policy instruments as they operate within and across the national and sub-national authorities within the Wadden Sea region. In addition, the study examines the implications for the region of emerging and planned policy and legislative initiatives and the challenges facing the area from developments in policies for agriculture, energy, fishing, tourism and other economic and commercial activities. The context of the review is that the Wadden Sea is a single ecological system that cannot be understood or examined on the basis of national or regional boundaries. To that end, and in the spirit of the trilateral agreement, the review will seek to identify a specific 'Wadden Sea perspective' in the approach used for the implementation of policy and legislative instruments. That 'perspective' is defined by decision-makers commencing their decision making processes with the State Declaration and the Wadden Sea Plan as the prime consideration. The review examines the implementation of legislative and policy instruments within that context and seeks to identify any barriers that may exist to the coherent and consistent implementation of legislation and policy across the Wadden Sea as a whole.

1.1.7 The study has been commissioned by the Wadden Sea Forum and was conducted by the Impacts Assessment Unit (IAU) of Oxford Brookes University. The IAU is a multi-disciplinary research and consultancy team within the University's Department of Planning and School of Biological and Molecular Sciences and has wide experience of research and consultancy relevant to the study.

1.2 Study Objectives

1.2.1 The key objective of the study is to provide an evaluation and assessment of the relevant international, in particular European Union, legal, policy and management instruments, as they apply to the Wadden Sea Region. The review is required to have particular regard to the current status of implementation, including implementation deficits, and to any implications for implementation of likely future or anticipated legal instruments and policies. The tasks to be undertaken to complete the review are:

1. To review the Habitats Directive, the Birds Directive, the Water Framework Directive and the Environmental Impact Assessment Directive with regard to the Wadden Sea region;

2. To review other relevant European Community instruments and policies in particular, the Common European Agricultural, the Common European Fisheries Policy, policies relating to the industry and transport sector, tourism and social development with regard to their implications for the Wadden Sea region;
3. To review the concept of Integrated Coastal Zone Management, as recommended by the European Parliament, and its implications for the Wadden Sea region;
4. To review other relevant international legal instruments, policies and strategies relevant for the Wadden Sea region; and
5. To draw conclusions from the above and make recommendations for actions that strengthen the implementation and operation of environmental policy instruments in the region as a whole.

1.3 Theoretical Framework

1.3.1 This study has a core aim of investigating the implementation of key EU environmental Directives and the likely implications for the Wadden Sea region of implementing other policy initiatives. Implementation is part of a whole policy process that includes the policy itself the mechanisms or tools used to implement the policy, and procedures or sanction used to enforce the implementation tools. A key area of the study of public policy is the linkage between these aspects of policy and the decision-making procedures and processes in place at each stage (see Hill 1997). There is extensive academic literature on public policy and implementation and the theoretical explanations of why implementation is successful or otherwise. It is not the role of this report to rehearse all of that literature or the various approaches to understanding the implementation of policy. However, the theoretical framework established by the literature does provide a useful context in which the implementation of legislation and policy in the Wadden Sea Region can be assessed.

1.3.2 Much of the early literature on implementation theory comes from the USA and is based upon the implementation of federal legislation and policy at state level (see Hill, 1997, p. 129). While not suggesting that the European Union is a federal state, there are interesting parallels between the implementation issues raised by that early literature and the current study. One of the main areas in the study of implementation has been the failure of national policies and legislation to be fully implemented at local level. This problem of 'implementation deficit' was recognised in work by Pressman and Wildavsky (1973) on the implementation of some major USA policy initiatives. The major thrust of their work was that successful

implementation depended upon the linkages between policy makers and implementation bodies and between tiers of implementation bodies. Their view was that co-operation between such bodies had to be as close to perfect as possible if implementation was to be effective in achieving policy objectives. The study of implementation deficit was taken further by Hogwood and Gunn (1984) who argued that there are a number of preconditions necessary for successful implementation. There are many variations on the Hogwood and Gunn criteria that use the concept of implementation deficit to develop measures to be used to tackle the problem. The main ones are as follows:

- the policy or legislation should be unambiguous and free from the need for further interpretation by implementation agencies;
- the links between the policy or legislative body and the implementation agencies need to be direct and the policy and law makers must have control over the implementation agencies; and
- there should be no outside intervention or competing policy priorities (see Hill 1997).

1.3.4 In the field of EU environmental policy and law these factors are clearly largely absent. For example, both the Habitats Directive and the EIA Directives provide for a good deal of discretion in their implementation at Member State level. Furthermore, the agencies - the competent authorities - responsible for implementing the Habitats and EIA Directives are very many links down the implementation chain from the European Commission. In some cases the links can be very remote.

1.3.5 Hill (1997) suggests that this top-down approach to assessing the implementation of policies is too simplistic and does not fully recognise the need for clear linkages between the lowest level of implementation agencies i.e. horizontal as well as vertical integration. He also points out that many policies are ambiguous by design because they represent a compromise between conflicting values and priorities. For example, the Habitats Directive, while providing firm protection for habitats, also emphasises the importance of taking into consideration social economic and cultural considerations in decision-making. This ambiguity then leads to problems of implementation deficit, particularly when policies are not designed in such a way that their objectives can be maintained when the priorities of the implementation agencies alter through factors such as economic change.

1.3.6 The top-down model of implementation also suffers from an over emphasis on the role of agencies and often fails to fully consider the importance of other key factors in implementation deficit. One of these key factors is decision-making and the basis on which decisions in the implementation of policy and law are made. Here there is a large array of competing explanations and theories for the way in which administrative decisions are made. Some of these explanations are structural, and examine decisions against prevailing societal

structural frameworks. Other theories examine the actual behaviour of the decision-maker⁴. In the field of the environment, administrative decision-making theory commences with an underlying premise that all environmental decisions are based upon value judgements, and that there can be no objective means of measuring an environmental decision against concepts of 'right' or 'wrong' or 'correct' or 'incorrect' (Willis, 1995). In the absence of a measure of a 'right' or 'correct' decision, decision-making theory tends to examine decisions on the basis of whether or not they can be considered a 'good' or 'poor' decision. A 'good' decision is often characterised as a decision that is based upon legitimate authority, transparency and consistency (Baldwin, 1995, p.17-18.). Legitimate authority for a decision derives from compliance with the legal and policy framework of decisions, where that legislation and policy has gained legitimacy through common consent. Transparency in decision-making requires some form of open process where those affected by a decision have access, through consultation or participation, to the decision making process; and consistency requires that similar issues and conflicts are resolved in the same way.

1.3.7 The effectiveness of a policy is often measured by examining the link between policy formulation, implementation, decision-making and compliance. For a policy or legal instrument to be capable of successful implementation, implementation decisions must be enforceable. To be enforceable decisions must be based on the same legitimate authority that provides the basis for the policy and law and there must be sanctions available to the decision-maker to ensure compliance. This link, between the legitimate authority of the policy or legal instrument, the implementation tools used to put the policy or law in place, the decisions that flow from those implementation tools and the enforcement sanctions available to ensure compliance, can be termed the 'enforceable legitimate authority' of environmental policy. The measure of the effectiveness of a policy can be analysed by assessing the level of enforceable legitimate authority. For example, an analysis of the effectiveness of the Stade Declaration and the Wadden Sea Plan would need to examine the mechanisms that are in place to ensure compliance and to assess whether those mechanisms have legitimate authority.

1.3.8 In the context of this study, there is a further aspect of theory that needs to be addressed. This relates to the legitimate authority of international policy agreements and the organisational mechanisms in place to implement and enforce international policy agreements. The Wadden Sea is a single ecosystem that crosses international boundaries and the Stade Declaration is a recognition that the problems of maintaining and enhancing the conservation status of the area do not respect administrative boundaries. This type of approach has been a growing theme in environmental policy making and has led to numerous international environmental treaties, conventions and agreements around the world. Research

⁴ For an examination of how these theories relate to EIA see Weston J. (2000) 'EIA Decision-Making Theory and Screening and Scoping in UK Practice', in *Journal of Planning and Environmental Management*, 43(2) pp. 185-204

and analysis of these international agreements has been of increasing academic interest and has led to the development of 'regime analysis' as a means of assessing the mechanisms in place to implement these agreements (Haas, 1983). Regime analysis examines the legal basis of international treaties/agreements, the role of principles in the formulation and implementation of treaties/agreements and the outcomes of international decision-making (Mason, 1999, p.215). Analyses of specifically international environmental regimes have suggested that there is an increasing trend towards non-binding agreements, similar to the Stade Declaration and Wadden Sea Plan. This trend is largely because of the difficulty of negotiating effective binding treaties where the 'least enthusiastic party' tends to set the 'rules' (ibid). Non-binding agreements are seen as a mechanism through which the more enthusiastic parties to an agreement can set the agenda and through public opinion building, and the actions of international NGOs, persuade the other parties to follow.

1.3.9 Wettestad (1999) examined the operation of a number of (case study) international environmental regimes and found that many start off as 'soft' non-binding regimes where there was 'paper thin' agreement and little is done to ensure compliance. However, Wettestad found that over time these regimes tended to develop 'sharper teeth' with comprehensive reporting procedures, independent implementation review bodies and the development of compliance instruments. One explanation for this change is the role of international NGOs in monitoring the implementation of policies and plans. These organisations have, typically, a much more international focus and organisational structure than do the official parties to the agreements and can help to influence public opinion and foster political change (Mason, 1999, p.217).

1.3.10 The development of international agreements is almost always a compromise, with the individual sovereign states seeking to protect not only their national interests but also the interests of their commercial sectors (Mason, 1999, p217). International environmental NGOs are largely excluded from negotiations on the terms of international environmental regimes. Yet Victor (et al 1998) found from their research on regime implementation that international agreements tend to be far more effective when NGOs are included in the regime development process and can counterbalance the influence of commercial sectional interests. This involvement of commercial as well as environmental interest groups in the development of regimes is part of the legitimacy building of an international agreement. This is further enhanced through effective mechanisms used to involve the wider public in the process. Only when an international environmental regime can claim this level of legitimacy can the proper implementation tools be developed to ensure effective implementation and compliance.

1.3.11 From this brief discussion of the theoretical context of implementation it is possible to identify a number of factors that help to ensure the effectiveness of implementation:

- the policy or legal instrument being implemented must have enforceable legitimate authority;
- the legitimate authority of regimes must be based on inclusive negotiation;
- there must be horizontal and vertical co-operation and co-ordination between implementation agencies;
- there must be consistency of decision-making; and
- agreements on implementation must have 'teeth' and be more than 'paper thin' to ensure compliance.

1.3.12 This study will examine the implementation of the key European Directives and other policy and legal initiatives within the regional context of the Wadden Sea and place that examination within the context of the theoretical issues discussed above. While not a key objective of the study, this assessment will inevitably lead to a consideration of the Stade Declaration and the Wadden Sea Plan and their effectiveness in achieving the goal of managing the Wadden Sea as a single ecological entity through the operation of the key EU Directives and other policy initiatives.

1.4 **The Stade Declaration and the Wadden Sea Plan**

1.4.1 The overarching policy that is of prime consideration here is the Stade Declaration. That policy has at its heart a trilateral commitment to treat the Wadden Sea as a single ecosystem and the recognition that activities outside of the designated wildlife protection areas can have significant implications for the sites themselves. The Stade Declaration and Wadden Sea Plan drew on the progress towards intergovernmental co-operation on the management of the Wadden Sea made at Esbjerg in 1991 and Leeuwarden in 1994. The Stade Declaration seeks to ensure that there is an integrated approach to both issues affecting the Wadden Sea and the trilateral approach to their management. The Wadden Sea Plan provides an analysis of a range of issues, the key habitats and species making up the nature conservation interests of the Wadden Sea and targets for improving the conservation status of the habitats and species. The targets set by the Wadden Sea Plan are not quantified and do not provide measurable standards or timescale for achievement. The Plan provides brief statements on how to proceed to the targets, but once again these are not quantified. The trilateral policy and management statements provided by the Plan provide background advice on the management of the area, but once again they have no real 'teeth' or legally binding mechanisms for compliance.

1.4.2 The area covered by the Stade Declaration and the Wadden Sea plan is limited to the 'Trilateral Area of Co-operation' as defined by the Leeuwarden Declaration, which, in the most part, is limited to the protected areas. There would appear to be little if any legally binding commitment to consider the Wadden Sea ecosystem within its wider regional context and this research has found little evidence to suggest that there is a definitive geographical concept of

a Wadden Sea 'region'. Furthermore, the State Declaration provides no legally binding instruments for its implementation and it lacks the enforceable legitimate authority necessary to be capable of fully integrated compliance.

1.5 Structure of the Report.

1.5.1 Following this introduction, Section Two is an examination of the implementation of these key Directives in the Wadden Sea Region. It provides some of the legal context in respect of the implementation of the Birds, Habitats and EIA Directive - the key Directives under investigation here. Section Two also reviews some of the defining European Court of Justice cases that have helped to provide clarification on the implementation of the Directives in the Member States. This Section of the report is partly based on the results of an email questionnaire survey sent out to the relevant implementation agencies and the responsible national government offices, as well as an extensive literature search. Section Three examines the concept of Integrated Coastal Zone Management (ICZM) based on a literature of international experience and practice. From this review the report suggests some key good practice issues for ICZM. Section Four provides a review of other European and International policy initiatives that have implications for the Wadden Sea Region. The Section also discusses some of the potential implications for the Wadden Sea Region that result from emerging trends in key economic sectors/activities. The final section of the report provides an overall summary of the findings and recommendations for action.

2. THE KEY EUROPEAN ENVIRONMENTAL DIRECTIVES

2.1 Introduction

2.1.1 This section reviews the implementation of the key Directives in the Wadden Sea Region – Birds, Habitats, EIA and Water Framework Directives. The discussion of each Directive commences with a brief overview of the current legal status and the main implementation issues arising from the Directives and relevant European Court of Justice (ECJ) case law. The review of the implementation of each Directive is based mainly upon a documentary and literature search and this has been supplemented by the results of an email questionnaire to key implementation agencies within the region. Additional information has been gathered from a number of other sources, including NGOs that have interests in the Wadden Sea region and its conservation.

Implementing Agencies

2.1.2 There is a complex web of agencies responsible for implementing the key Directives in the Wadden Sea region. In general all three countries devolve responsibility for many aspects of the day to day operation of the Directives to the local level of public administration. In Denmark key implementation agencies are the counties of Sønderjylland and Ribe, which have physical planning responsibilities over land. These two authorities work within a framework of national legislation that transpose the Directives into national law. In Germany much of the responsibility for transposing the Directives lies with individual Länder, although there is also national level legislation for the transposition of the Directives and the Länder, produce their own legislation within the national framework. In Schleswig-Holstein, for example, there are different levels of administration for the day-to-day implementation of the Directives as there are a number of environmental and other licensing regimes relevant to the Directives that are administered by different competent authorities. Some aspects are covered centrally by the Ministry for the Environment, Nature Protection and Agriculture (Schleswig-Holstein) and the National Park Office, while others are dealt with at the local level by the two districts of Kreis Nordfriesland and Kreis Dithmarschen. In the Netherlands the implementation of the Directives is also the responsibility of a number of regional divisions within the provinces of Noord-Holland, Fryslân and Groningen and they have their own regulations that complement the national legislation. In turn the competent authorities include the lower-tier municipalities such as Gemeente De Marne. The Dutch environmental protection legislation comprises many licensing regimes and as a result the EIA Directive is implemented by a variety of competent authorities.

2.1.3 The large number of competent authorities that are in place in the region to implement the Directives has made the collection of information on implementation complex and difficult. From the responses to the questionnaires it is apparent that not only is implementation of individual Directives conducted within different tiers of government, but also, within some authorities, the responsibilities are divided further. For example, for the EIA

Directive different levels of government are responsible for screening projects on the basis of thresholds, while within authorities different sections are responsible for dealing with different project types. Some projects are dealt with within the framework of land use planning, while others are dealt with through pollution or environmental control regimes. There is some evidence from the responses to the questionnaire that not only is horizontal co-ordination between implementation agencies weak or non-existence, but also vertical co-ordination between agencies is not all that it could be. This has the potential effect of the different agencies using slightly different criteria for decision making. It also has the effect of the decisions being considered as separate and distinct pieces of legislation when all the key Directives should be seen as part of an integrated framework in which EU environmental policy is implemented. The EIA, Birds, Habitats and Water Framework Directive should be considered together so that there is consistency in the approach to implementation. This is very difficult if implementation is so fragmented across agencies and will rely upon close co-operation and consultation at competent authority level and, in the context of this study, will require the application of a specific “Wadden Sea perspective”.

2.2 Habitats Directive And Birds Directive

Legal Framework

2.2.1 The Birds Directive (Directive 79/409/EEC on the conservation of wild birds) was the first piece of EU nature conservation legislation. Under the Directive Member States are under a duty to take measures to maintain a sufficient diversity of habitats for all European wild birds and regularly occurring migratory birds. The duty extends to the creation of Special Protection Areas (SPA). Once an SPA has been designated, the Member State must take steps to avoid deterioration of the habitat, or pollution or the disturbance of the birds within it. A second part of the Directive relates to a number of bans on activities that directly threaten birds and associated activities such as trading in live or dead birds. A further component of the Directive establishes rules that limit the number of species that can be hunted and the periods during which they can be hunted. There are procedures within the Directive that allow for the granting of consents to authorise activities that would be harmful to habitats and species.

2.2.2 There have been a number of key European Court of Justice (ECJ) cases that have arisen in relation to the implementation of the Directive. The two most significant of these were C-355/90 *Commission v Spain* (the Santofña Marshes case) and Case C-44/95 *R v Secretary of State for the Environment, ex parte Royal Society for the Protection of Birds* (the Lappell Banks case). Both cases dealt with the designation of SPAs and resulted in a clear position from the ECJ that at the designation stage for an SPA, ornithological considerations were the only basis for designation and that other, including economic, considerations could not be used to exclude sites, or parts of sites, that otherwise fulfilled the relevant ecological criteria for designation. A further case dealing with designation was C-3/96 *Commission v*

Netherlands. Here the ECJ ruled that Member State discretion over the designation of an SPA was to be made wholly on ornithological criteria and that the fact that other protection measures were in place to protect such sites did not provide justification for non-designation as an SPA. In *C-57/89 Commission v Germany* (the Leybucht Dykes case) the ECJ established a principle that the reduction of the area of an SPA could only be justified on very limited grounds.

2.2.3 The Habitats Directive 92/43/EEC on the Conservation of Natural Habitats and of wild fauna and flora provides for the creation of a Europe wide network of Special Areas of Conservation (SACs), known collectively as Natura 2000. This is to be a coherent ecological network consisting of the sites that meet the criteria provided in Annex I of the Directive and those sites designated as SPAs under the Birds Directive. The main implementation issue that has arisen, thus far, relates to the failure of many Member States to meet the deadline for the communication of the list of candidate SACs to the Commission. Indeed the Habitats Directive is the largest single source of complaints to the Commission over Member States' failure to implement EU law⁵. As with the Birds Directive, there have been issues before the ECJ regarding the designation of sites. In *C- 371/98 R v Secretary of State for the Environment, Transport and the Regions, ex parte First Corporate Shipping Ltd* the ECJ's judgement was in line with its previous findings in respect of the Birds Directive:

“On a proper construction of Article 4(1) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, a Member State may not take account of economic, social and cultural requirements or regional and local characteristics, as mentioned in Article 2(3) of that directive, when selecting and defining the boundaries of the sites to be proposed to the Commission as eligible for identification as sites of Community importance”.

2.2.4 The second important feature of the Habitats Directive is the introduction, under Article 6(3) and 6(4), of a formal procedure for assessing whether projects or plans, either alone or in combination with other projects or plans, are likely to have a significant effect on a Natura 2000 site. Where significant effects are envisaged, an 'appropriate assessment' of the project or plan must be completed. This assessment is a stage by stage consideration of key factors. The first stage is to establish whether the significant effects are adverse in terms of their impact on the integrity of the site. Adverse effects are defined in the European Commission's guidance document *'Managing Natura 2000 sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC'*⁶ (MN2000) as being impacts where, following a preliminary assessment, there is a high degree of certainty that the effects are not positive or

⁵ Pers. Comms. Dg. Environment.

⁶ See <http://europa.eu.int/comm/environment/nature/home.htm>

that the outcome is uncertain. Where predicted impacts are negative or uncertain, the second stage of assessment is for a competent authority to determine whether there is 'an absence of alternative solutions'. Where no alternative solutions are identified, the project or plan may only proceed where there are 'Imperative Reasons Of Overriding Public Interest' (IROPI) and where such interests exist and are overriding there must be a consideration of compensatory measures to maintain the overall coherence of the Natura 2000 network. MN2000 has the following to say on the IROPI test (Para. 5.3.2):

“Having regard to the structure of the provision, in the specific cases, the competent national authorities have to make their approval of the plans and projects in question subject to the condition that the balance of interests between the conservation objectives of the site affected by those initiatives and the above mentioned imperative reasons weighs in favour of the latter. This should be determined along the following considerations.

(a) The public interest must be overriding: it is therefore clear that not every kind of public interest of a social or economic nature is sufficient, in particular when seen against the particular weight of the interests protected by the Directive (see, for example, its fourth recital stating ‘Community’s natural heritage’)(see Annex I, point 10).

(b) In this context, it also seems reasonable to assume that the public interest can only be overriding if it is a long-term interest; short-term economic interests or other interests which would only yield short-term benefits for society would not appear to be sufficient to outweigh the long-term conservation interests protected by the Directive”.

2.2.5 The European Commission has also published a guidance document on the procedures to be followed in carrying out an 'appropriate assessment' '*Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Non Mandatory Methodological Guidance*'⁷.

Relationship between the Birds and Habitats Directive

2.2.6 As noted earlier, the Birds Directive was one of the first pieces of European wide environmental legislation. Implementation of the Directive is achieved through the designation of sites and species for protection and this is largely achieved in the Wadden Sea region through the creation of Special Protection Areas under individual national legislation. The Wadden Sea SPAs are largely the same areas as previously designated for protection under the Ramsar Convention. As noted below, the candidate sites submitted by the Wadden Sea

⁷ http://europa.eu.int/comm/environment/nature/natura_2000_assess_en.pdf

Member States for designation under the Habitats Directive do not cover the same areas as do the SPAs. However, the Habitats Directive amended the Birds Directive to ensure consistency between the operation of the two systems of protection, and the European Commission's publication MN2000 states:

“As regards the date of application of Article 6(2), (3) and (4) of Directive 92/43/EEC to SPAs, it is reasonable to conclude that all sites classified, or qualifying for classification, as SPAs are subject to these provisions from the date of implementation of Directive 92/43/EEC”.

In terms, therefore, of the requirement for 'appropriate assessments' for projects or plans adversely affecting a Natura 2000 site, it is immaterial whether the site of such a project or plan is in the SPA or SAC. Furthermore, following the *Santoña Marshes* case, the requirement for an 'appropriate assessment' applies to all sites that fulfil the ecological criteria for designation, regardless of whether they have been designated or not. If, therefore, sites or areas have been excluded from the candidate SAC list, that fulfil the designation criteria, they remain protected by virtue of Article 6.3 and 6.4 of the Habitats Directive.

Marine Habitats

2.2.7 Most of the obligations arising under the Habitats Directive apply equally to marine and coastal habitats. The Directive makes specific provision for the designation of marine sites under Article 4(1), which states:

“for aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction”

2.2.8 A problem exists throughout the EU in that candidate marine sites are not well represented within the lists of Sites of Community Importance (SCIs) (with the exception of Denmark), as the majority are submitting lists based upon some form of existing designation. Part of the reason for this can be attributed to little or no experience of protecting or managing marine sites – the Habitats Directive compounds this problem as the marine and coastal categories are broad and the “essential factors” which must be identified if a site is to be designated are often difficult to confirm. There are 43 marine and coastal habitats listed on the Habitats Directive, of which 11 are afforded priority status. Further problems exist in that there has been little if any comprehensive survey work in marine and coastal (especially estuarine) areas. Site management is difficult, as there is often no single owner with whom to agree a management plan and the sites are very dynamic compared to their terrestrial counterparts, being strongly influenced by seasonal changes in natural forces.

2.2.9 The EU coastline stretches over 89,000 km and supports over 50% of the EU's richest and most sensitive ecological areas. For example, sandflats, saltmarshes and mudflats are particularly productive habitats and act as important nursery areas for fish and shellfish. The Wadden Sea is the largest continuous stretch of intertidal mudflats in the world. However, these coastal and marine areas are also of significant importance for agricultural production and industrial development – near-shore and offshore sources of marine aggregates, fish and shellfish and hydrocarbons are all highly sought after. Further pressures exist in that approximately 30% of the total EC population live within 50 km of coastal waters. Human pressures on marine habitats exist in the form of:

- tourism, as coastal areas provide opportunities for many types of marine recreational activity that has the potential to cause disturbance to wildlife sites;
- agriculture, and the availability of CAP funding for ecologically damaging activity;
- shipping and fishing; and
- energy, as there is an increasing policy trend towards locating wind turbines in coastal or off-shore areas.

Identifying Candidate SACs

2.2.10 Each of the habitats selected for inclusion within the Natura 2000 network under the Habitats Directive has its own definition. It is of note that these habitats are both ecologically complex and dynamic in their nature. This is of consequence as an ECJ court ruling (C-371/98 *First corporate Shipping*) decreed that the selection and delimitation of (in this instance an estuarine habitat) site must be based exclusively upon scientific reason and that their selection process should take into account the constituent biotopes, geomorphological features, dynamic ecological issues and hydrological processes. To keep to the letter of this requirement, NO important part of the habitat complex should be excluded. This has consequences in determining boundaries of sites as there is a need to consider what constitutes part of the habitat complex, as any changes to that overall system ultimately impact upon the designated site. In the case of the Wadden Sea the boundary should include the complete area of the existing natural habitat and that no exclusion zones should be acceptable without scientific justification. As in the case of *First Corporate Shipping*, economic, social and cultural requirements or regional and local characteristics should not be considered when selecting and defining sites for inclusion under the Habitats Directive. In the Wadden Sea this will include shipping lanes, sub-littoral channels and those areas included under the forthcoming River Basin Plans required under the Water Framework Directive.

2.2.11 One area of possible debate over site selection and designation is the suggestion that where, due to previous activities, part of the site has become ecologically degraded then that part of the site may be a candidate for exclusion. However, it is difficult to see how this could be demonstrated in the Wadden Sea and, even if it could be demonstrated, the dynamic nature of the ecosystem will allow for rapid recovery to the “normal-state”, assuming the

disturbance had been over a short time scale. Another possible area of debate might be the suggestion that the degree of development has been so extensive and long-term that the natural system no longer exists. This is unlikely to be the case for those developments presently impacting upon the Wadden Sea.

2.2.12 The national, regional and local authorities of the Wadden Sea all claim that full lists of sites that meet the relevant criteria have been, or are about to be, submitted as candidate SACs to the European Commission. However, there were some doubts raised by NGOs and others over this claim. There are concerns that areas that meet the criteria for listing have been omitted e.g. including the low-lying marshes behind the sea dykes in Denmark, the Lauwersmeer area in Holland and the fact that the SAC boundaries do not match the SPA boundaries in all cases. There is also a concern that an arbitrary depth line of 5 meters has been used for the candidate SAC boundaries even though the habitat type (#1110) occurs well beyond this point. The Birds Directive SPA designations extend to 3 nautical miles from the coast. Figures 2, 3 and 4 at Appendix 1 provide maps that show the areas covered by the SPA designations and the candidate SACs. These maps indicate the disparity between the SPA and candidate SAC designations, particularly with regard to offshore and landward delimitation. They also indicate that other areas have apparently been excluded including shipping lanes and estuaries. As noted above, this exclusion does not remove these areas from protection where they meet the ecological criteria for designation. Indeed, it may be considered as a short sighted approach to exclude such areas as any future plans or projects affecting the sites would need to be subject to an 'appropriate assessment' and could lead to decisions being challenged in the ECJ. However, for the Wadden Sea area to be managed as a single ecosystem it is essential for consistency in decision-making that there is consistency in the delimitation of Natura 2000 habitats. This will not only ensure the coherence of the ecosystem but also contribute to the coherence of the Natura 2000 network. In terms of policy and legislative implementation, it also makes more administrative sense for there to be a single identifiable geographical area that covers all of the relevant designations than very many areas covered by different designations. This would ensure that the same assessment procedures and conservation criteria are applied consistently throughout the ecosystem.

Article 6(1) and Management Plans

2.2.13 Article 6(1) of the Habitats Directive establishes a duty on Member States to produce a conservation regime for the special areas of conservation (SAC). These 'necessary conservation measures' must be positive and must apply to all the natural habitats types of Annex I and the species of Annex II that are present on the sites (MN2000, p16). The conservation measures can take two forms – 'appropriate statutory, administrative or contractual measures' and 'if need be' an 'appropriate management plan'. MN2000 points out that even if a Member State considers it to be unnecessary to produce a management plan for a site, it is still required to put in place 'statutory, administrative or contractual measures' to

achieve the 'necessary conservation measures'. Member States are required to choose at least one of these measures and there is no hierarchy between statutory, administrative or contractual measures. These measures must be appropriate within the broad objectives of the Directive to maintain or restore the habitat at a favourable conservation status. It is understood that the Wadden Sea Member States rely on existing conservation legislation as the basis for meeting the requirements of Article 6(1).

2.2.14 The Habitats Directive does not make the production of a management plan mandatory, indeed MN2000 makes clear that they will not always be necessary and Annex II of MN2000 suggests that there needs to be a degree of justification for creating such plans. In the case of the Wadden Sea such justification is likely to be based upon the trilateral co-operation agreement and the fact that the area is considered to be a single ecosystem that crosses international boundaries and where consistency of approach in maintaining or enhancing the conservation status of the habitat is necessary.

2.2.15 Where a management plan is used as the basis for identifying and implementing the 'necessary conservation measures' they must be designed specifically for the objective to maintain or restore the habitat at a favourable conservation status. Natura 2000 management plans do not necessarily have to be stand alone documents, the management plan requirements of the Directive can form part of other land use, development plans or ICZM plans, but they must form a distinct part of that other plan. MN2000 states that the purpose of the plans is to address all existing and foreseen activities that are likely to affect the site, with other unforeseen activities managed through the assessment requirements of Article 6(3) and 6(4) (MN2000, p.19). The concept of 'existing and foreseen activities' is not the same as the concept of 'allowable activities' used elsewhere in EU legislation. The purpose of the management plan is to provide conservation measures that ensure the 'favourable conservation status' of the sites. Therefore, where 'existing or foreseen activities' are not conducive to the maintenance or enhancement of the conservation status, the management plan should include measures to reduce or remove the impact of those activities. In the context of the Wadden Sea, this would mean that a Natura 2000 management plan would have to consider the impact of all existing and foreseen activities including fishing, shipping, agriculture and other socio-economic activities that are likely to have an adverse impact on the protected areas and set targets for the removal of the adverse effects. There would need to be consistency of approach between the three countries of the Wadden Sea to ensure that all adverse impacts of these activities are identified and that consistent achievable targets are set for addressing the impacts.

2.2.16 There are no specific requirements for the content of a management plan. However, MN2000 states that the management plan should consider the 'statutory, administrative or contractual measures' necessary to achieve the conservation measures required by the

Directive and that it 'makes sense' that the management plan be produced in advance of finalising the other measures (MN2000, p19). The purpose of this is to ensure that the statutory, administrative or contractual mechanisms are designed to ensure that they implement the requirements of the plan in a consistent manner and that such plans have enforceable legal authority through the 'other measures'. This will not be possible in the Wadden Sea as the existing Member State and regional legislation will be used to implement Article 6(1) and the Wadden Sea Plan has no enforceable legitimate authority.

2.2.17 The Wadden Sea Plan (WSP), while not fully constituting a management plan for the purposes of the Habitats Directive, does provide an excellent starting point for its development into such a plan. The plan identifies targets for achieving the maintenance and improvement of six habitat types, water and sediment quality, birds and marine mammals and landscape and cultural value. These targets are similar in concept to the conservation objectives that should be the basis of a Natura 2000 management plan. Annex II to MN2000 suggests that objectives/targets should be based upon the following:

- an understanding of the existing conservation status of each significant habitat and species type on the site; and
- an understanding of how each species and habitat type contributes to the overall integrity of the site.

The WSP provides information on the ecological function of the habitat types, an assessment of the conservation status of each habitat and provides discussion on how the targets should be met. It is not always clear from the Plan how each habitat or species type contributes to the overall integrity of the site as a whole – there is no detailed assessment of how each element contributes to the 'structural and functional relationships that create and maintain the site's integrity' (see CeC 2001 *'Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Non Mandatory Methodological Guidance'*⁸). The targets provided in the plan are not always clearly defined in terms of quantifiable or measurable outcomes as suggested by MN2000 and there is no strict timetable for compliance. A Natura 2000 management plan should also include information on any contractual arrangements that are in place, or need to be put in place, between landowners or other stakeholders and competent authorities, to ensure the maintenance or improvement of the conservation status of the habitats. These contractual arrangements would include management agreements covering issues such as fishing, shipping and agriculture etc. The WSP was produced in advance of the establishment of the boundaries of the SAC sites within the Wadden Sea and therefore it is not surprising that it is not a complete Natura 2000 management plan.

⁸ http://europa.eu.int/comm/environment/nature/natura_2000_assess_en.pdf

Furthermore, for the WSP to develop into a Natura 2000 management plan that was capable of removing the adverse impacts of existing or foreseen activities, it would be necessary for it to have the enforceable legitimate authority discussed at Section 1.3 above.

2.2.18 MN2000 also suggests that consultation is a key part of the development of a Natura 2000 management plan and that consultation will require the identification and involvement of all local interests in a 'bottom-up' approach (MN2000, p.53). This clearly has similarities to the best practice requirements for ICZM as discussed in Section 3 below.

Appropriate Assessments

2.2.19 The 'appropriate assessments' required under Article 6 should apply to all 'projects or plans', including all new development proposals and ongoing maintenance activities, impacting the Wadden Sea. There appears to have been no attempt within the Wadden Sea Member States to provide a specific definition for 'projects' or 'plans', other than that provided by the European Commission's Habitats Directive guidance documents. There is some evidence of differences in approach to how the terms are interpreted. For example, there appears to be no common approach to the licensing of shellfisheries. In some parts of the region they are considered as 'plans' and are capable of being the subject of an 'appropriate assessment' under the terms of Article 6 of the Habitats Directive. In other areas they are considered to be existing activities under Article 6(2) and are dealt with under the existing statutory or administrative measures. This position is being examined by the ECJ in the case of 'Raad van State'. The issue before the court revolves around the licensing system for cockle dredging in Holland. This activity takes place for a 6-week period each year and because it takes place in a different area each year it has to be licensed each time. The ECJ must decide whether this is an Article 6(2) existing activity or a new 'project or plan' under Article 6(3) and 6(4). While the licensing system currently examines the ecological and environmental implications of granting a license, if the court rules that it is a project or plan, then the licence would be subject to the much more rigorous tests imposed by Article 6(3) and 6(4), including the need to demonstrate that it is a matter of over-riding public interest and that there is an absence of alternatives.

2.2.20 The level of activity in terms of projects or plans significantly affecting Natura 2000 sites appears to vary across the region. In Ribe County, Denmark, there have been several appropriate assessments in connection with construction works including a by-pass-road in the marshes west of Ribe, a refuse disposal plant in Esbjerg, the reinforcement of the Rejsby Dyke south of Ribe and three windmills on the northern tip of the island of Fanø. All of these appropriate assessments have found in favour of the projects. In Sønderjylland County the reinforcement of the Rejsby Dyke has also been subject to assessment. In both counties a number of plans for expansion of animal farming have also been assessed. In Holland the municipality of Gemeente De Marne was the initiator and competent authority for a housing,

recreation and yacht basin project that was subject to both an appropriate assessment and an EIA. According to the Dutch Ministry of Agriculture, Nature Management and Fisheries (Department North) there have been no cases, to date, that were considered to have significant adverse effects on a Natura 2000 site. No details have been provided for the German Wadden Sea area other than that relevant activities are controlled and assessed under existing legislation and that the legislation meets the requirements of the Habitats Directive assessments.

2.2.21 There is no single guidance document used for completing an appropriate assessment or for considering mitigation or compensatory measures. In Denmark the Ministry of the Environment has published a guide on international nature protection areas (EU Habitat Directive Areas, EU Birds Directive Areas and Ramsar Sites), that is used by local communities and county administrations when dealing with appropriate assessments. The Dutch Ministry of Agriculture, Nature Management and Fisheries, is currently drafting guidance called 'Working on Natura 2000, a guidance for the protection of Bird and Habitat Directive areas'.

Summary

2.2.22 The Trilateral Wadden Sea Plan recognises the need for a common approach to the establishment of the areas to be covered by the Birds and Habitats Directives. In the Stade Declaration it states that the Ministers 'agree to work further towards a more coherent Natura 2000 area for the Wadden Sea' (para. 19). From the evidence of this review there is still much to be done in this respect. There is evidence that certain areas have been excluded from listing as candidate SACs for other than ecological reasons. This is likely to prove to be a mistake in the long run as such areas still enjoy protection under Article 6(3) and 6(4) of the Habitats Directive and any activities that are likely to cause significant adverse effects to such areas will undoubtedly find their way to the ECJ. However, for the Wadden Sea area to be managed as a single ecosystem it is essential for consistency in assessment and decision-making that there is consistency in the delimitation of Natura 2000 habitats. In terms of policy and legislative implementation, it makes more administrative sense for there to be a single identifiable geographical area that covers all of the relevant designations than very many areas covered by different designations, as this would ensure that the assessment procedures and criteria used recognise the coherence of the ecosystem as a whole. It also needs to be recognised that projects beyond the boundaries of the SPAs and candidate SACs, that are not within sensitive ecological areas themselves, can still result in significant adverse effects to the Natura 2000 areas. This is a point that is again recognised by the Stade Declaration at paragraph 13. Yet there appear to be instances where this point is not being acted upon in practice by competent authorities. The Ems River dam would appear to be such an example (EUCC Coastal News No 7, 23 June 2003).

2.2.23 The Habitats Directive makes non-mandatory provision for the development of a management plan for Natura 2000 sites. Such a plan would be of particular value in the trilateral circumstances of the Wadden Sea where the area is to be managed as a single ecosystem. The purpose of the management plan is to provide conservation measures that ensure the 'favourable conservation status' of the sites. Where 'existing or foreseen activities' are not conducive to the maintenance or enhancement of the conservation status, the management plan should include measures to reduce or remove the impact of those activities. In the context of the Wadden Sea, this would mean that a Natura 2000 management plan would have to consider the impact of all existing and foreseen activities including fishing, shipping, agriculture and other socio-economic activities that are likely to have an adverse impact on the protected areas and set targets for the removal of the adverse effects. For the WSP to develop into a Natura 2000 management plan, that was capable of removing the adverse impacts of existing or foreseen activities, it would be necessary for it to have the enforceable legitimate authority discussed at Section 1.3 above.

2.3 Environmental Impact Assessment Directive

Introduction

2.3.1 The Environmental Impact Assessments (EIA) Directive (85/337/EEC, as amended by Directive 97/11/EC) requires Member States to put into place procedures for the EIA of certain public and private projects, before they are authorised. The aim is to ensure that all projects likely to have significant environmental effects are assessed. The European Commission considers EIA to be one of the key implementation tools for its wider environmental policy and for the achievement of more sustainable development. This is evidenced by the adoption of the Strategic Environmental Assessment Directive (SEA). The links between the various environmental Directives is also made clear by the fact that amending Directive 97/121/EC allows Member States to integrate EIA and Integrated Pollution Prevention and Control (IPPC) procedures and that MN2000, and the methodological guide for appropriate assessments, make strong links between the need for an EIA and the requirements of Article 6(3) and 6(4) of the Habitats Directive. The Commission has published guidance on the key stages of the EIA process – screening, scoping and review and consultation on transboundary impacts – see <http://europa.eu.int/comm/environment/eia/eia-support.htm>

2.3.2 The EIA Directive is implemented in the Wadden Sea by a wide range of legal instruments and by very many different competent authorities. In Germany, for example, there is the national EIA Act, the Länders' own legislation and then legislation for different types of authorisation procedures such as the Emission Control Act and the Water Management Act. These different types of EIA project authorisations are also in place in the Netherlands and Denmark.

Legal Framework

2.3.3 The EIA Directive places a duty on Member States to make provisions for the completion of an EIA where projects are “likely to have significant effects on the environment” (Article 2). The Directive provides, in Annex I and Annex II, lists of the projects covered by Article 2. Article 4 (1) of the Directive requires that the projects listed in Annex I are subject to EIA on a mandatory basis. Projects listed in Annex II only require an EIA where there are ‘likely’ to be significant environmental effects. It should be noted that the Directive does not distinguish between positive and negative impacts; the requirement is for an EIA to be completed where there are likely to be significant effects. The Dutch EIA Regulations, however, only require an EIA where a project “**may have serious adverse effects**”. The European Commission’s 5-year review of the operation of the EIA Directive⁹ warns against this approach to screening as there is a danger that competent authorities may overstate positive impacts to avoid the need for an EIA. It is also true that many environmental impacts are subjectively experienced and that a negative impact in one part of the country can be seen as a positive impact in another.

2.3.4 All Annex II projects must be screened to determine whether an EIA is required and to facilitate this screening process the Directive provides, at Annex III, a list of criteria that must be taken into consideration during the screening decision. The screening criteria provided by Annex III include:

- characteristics of the project - e.g. size, use of natural resources etc;
- project locational factors – e.g. in or near sensitive areas such as wetlands, protected wildlife sites and densely populated areas etc; and
- characteristics of potential impacts – e.g. extent and magnitude of impact, transfrontier nature of impact etc.

The Directive provides Member States with a limited amount of discretion to determine the mechanisms used for screening Annex II projects. Member States may base their screening process on:

- (a) a case-by-case examination of projects; or
- (b) thresholds and criteria set by any of the Member States; or
- (c) a combination of (a) and (b) above.

2.3.5 Amending Directive 97/11/EC introduced some key changes to the procedures of EIA, including a requirement for project proponents to provide an assessment of any alternatives they have studied, a non-mandatory scoping stage, arrangements for trans-boundary consultation and a requirement to make public screening decisions and the reasons why projects are authorised, together with details of any mitigation measures.

⁹ Adoption of the 5 Years Report on the Application and Effectiveness of the EIA Directive (Directive 85/337/EEC as amended by Directive 97/11/EC "How successful are the Member States in implementing the EIA Directive"

2.3.6 Since it first came into effect in 1988 the EIA Directive has been the subject of a number of key European Court of Justice rulings. Many of these rulings were consolidated in the amending Directive 97/11/EC. The ECJ has consistently ruled that the Directive should be interpreted as having a wide scope and broad purpose (see for example C-72/95 *C-72/95 Aannemersbedrijf P.K. Kraaijeveld BV e.a. v Gedeputeerde Staten van Zuid-Holland*. [hereafter C-72/95 the Dutch Dykes case]) and that individual Member States or competent authorities should not seek to narrow the purpose of the Directive in its operation. While much of the EIA Directive provides for discretion in the application of the procedures under the principle of subsidiarity, the ECJ has limited the discretion available to Member States in a number of ways. The Dutch Dykes case made clear that the discretionary powers provided by the Directive should not be used to devalue the general requirements of the Directive provided by Article 2(1) - that all projects in Annex II be the subject of EIA should they give rise to significant environmental effects. This means in practice that all Annex II projects must be passed through a screening procedure. In C-133/94 *Commission v Belgium* the ECJ ruled that Member States were at liberty to use either a case-by-case or a threshold approach to screening Annex II projects. The rulings in C-133/94 *Commission v Belgium*, C-72/95 the Dutch Dykes case and C-431/92 *Commission of the European Communities v Federal Republic of Germany* (the Grosskrotzenburg case) cases also made clear that while Member States have the discretion to define thresholds for screening Annex II projects, these thresholds could not be fixed at such a level as to exclude whole project types from assessment. Furthermore, in *Commission v Ireland* (C-392/96), the ECJ held that screening criteria or thresholds could not be limited to a consideration of the size of projects and that the nature and location of the project also needed to be taken into consideration. This led to the insertion of Annex III by 97/11/EC and a list of screening criteria that must be considered when establishing thresholds and considering individual projects on a case by case basis. In C-392/96 *Commission v Ireland* the ECJ also ruled that the setting of thresholds or criteria for Annex II projects could not be at such a high level that the objectives of the Directive would be circumvented by the splitting of projects into smaller units and that the cumulative effects of such an approach would need to be assessed.

2.3.7 *Commission v Ireland* also dismissed the argument that because certain project types were covered by other legislation (IPPC for example) that afforded strict protection for the environment, there was no need to submit such projects to EIA. The ECJ's ruling on this matter reinforces the view that even where impacts can be mitigated by other environmental control regimes, this does not mean that an EIA should not be carried out and therefore the screening of Annex II projects should take place in the absence of a consideration of such mitigation measures.

2.3.8 In C-431/92 the Grosskrotzenburg case and C-72/95 the Dutch Dykes case the ECJ dealt with the issues of changes or extensions to projects and ruled that additions or extensions to existing projects should be subject to EIA, should their size or scale or other factors meet the EIA requirements for a new project of that type. This was taken further in C-435/97 *World Wildlife Fund and Others v Autonome Sektion Provinz Bozen and Others* (the Bozen Case) where a change of use of an existing project can also be considered a 'change or extension' when that change is likely to give rise to significant environmental effects. Aspects of these rulings were transferred into the EIA Directive by 97/11/EC through the addition to Annex II of point 13, dealing with changes or extensions to Annex I or Annex II projects

2.3.9 The rulings of the ECJ on EIA and the amendments introduced by amending Directive 97/11/EC have greatly strengthened the procedural base of EIA. The cases also highlight the requirement for a precautionary principle approach to screening projects for EIA. This approach should not only be used in the screening of individual projects, but also in the establishment of thresholds and screening criteria. In the context of the trilateral agreement on the Wadden Sea, and the commitment to consider the region as a single ecological system, the screening of Annex II projects should be made in the context of the precautionary principle and the need to ensure consistency of decision making. The evidence of this review is that such consistency does not take place.

Screening

2.3.10 Article 4(3) of the Directive makes clear that in the operation of a case-by-case approach or in the setting of thresholds, Member States must have regard to the screening criteria set out in Annex III when they screen Annex II projects for EIA (The approach to screening and the thresholds used by the three Member States for certain projects are explained below and in Appendix 2 of the report). . In particular, Member States must consider the Annex III screening criterion "the environmental sensitivity of geographical areas likely to be affected by projects". The defining of such 'sensitive areas' is therefore crucial to the operation of the Directive as a whole. The Directive's own definition refers specifically to wetlands and protected wildlife sites. The Wadden Sea is therefore a 'sensitive area' by definition. The establishment of boundaries for the concept of a 'sensitive area' is crucial to the consistent operation of the EIA Directive and if the Wadden Sea is considered to be a single coherent ecosystem, there should be consistency in the way the boundaries for such areas have been defined. The evidence of this review is that this is not the case.

2.3.11 Germany and the Netherlands have expanded on the concept of 'sensitive area' referred to in Annex III and have incorporated it into their own EIA legislation. As national parks are included in the definition under the German regime, the Lower Saxony 'sensitive area' extends well beyond the Wadden Sea trilateral agreement area. The Netherlands has

transposed the requirements of Annex III into an exhaustive list of sensitive areas laid down in 'Structuurschema Groene Ruimte'. However, it would appear that the concept of 'sensitive area' is applied in a rather arbitrary way. In Provinciale Milieuverordening, the area covered by the 'sensitive area' designation ranges from up to 10 km inland from the shore-line to just 100 metres inland. As with the Habitats Directive, there should be a much more consistent recognition that projects some distance from the protected areas can have significant effects on the wildlife and habitats within those areas. This recognition should be operationalised through the development of common designation criteria that would widen the concept of 'sensitive area' so that in-land areas are included more consistently. There would also then be a need for all three countries to agree on the status of the 'sensitive area' in respect of screening projects for EIA. They could agree that all Annex II projects within the area should be subject to EIA – something that would be permitted under existing arrangements – or they could devise common thresholds that only operate within the sensitive area. As with the comments made on the implementation of the Habitats Directive above, for the Wadden Sea to be treated as a single system, it makes far more administrative sense to have a firmly defined geographical area where the same rules apply for screening. This would aid consistency of decision making as well as reducing the risk of harm being caused to the coherency of the ecosystem.

2.3.12 The discretion allowed by the Directive permits Member States to set thresholds that can make an EIA mandatory for Annex II projects and other thresholds that will exclude projects from EIA. However, as discussed earlier, these thresholds cannot be set at such levels so as to have the effect of removing the requirement for an EIA for whole project types and they must be based on a consideration of the criteria provided in Annex III of the Directive. Once again, if the Wadden Sea is to be considered as a single entity, one would expect that there would be consistency across the region in the setting of thresholds that are based upon Annex III. This is not the case. Denmark has moved some Annex II project types into their own Annex I. In Denmark there are no exclusion thresholds and Annex II projects are screened mainly on a case-by-case basis, using criteria based on Annex III of the Directive. There are some mandatory thresholds and/or locational screening criteria; below these thresholds a case-by-case approach is taken. During the case by case screening procedures in Denmark there is an assessment of the potential for cumulative effects. Germany makes no distinction between Annex I and II projects and has a tiered system of screening thresholds. There are mandatory thresholds and below these there are additional general thresholds used to indicate that a project should be screened on an individual basis. There is then a third level of thresholds that are used to screen projects on a site-specific basis. A fourth tier allows the Länder to produce their own screening criteria or thresholds. The case-by case screening criteria in section 2 of Annex II to the German EIA Act includes cumulation with other projects. The Netherlands have their own Annex I and Annex II distinction in line with the Directive. For Annex II projects there are inclusion thresholds above

which EIA is mandatory for certain projects. They also have exclusion thresholds, above which a project must be screened for EIA and below these thresholds EIA is not required. The Netherlands also have regional thresholds, although these thresholds have not been provided to the research team. The Dutch system can require an EIA for a group of linked associated projects, which are then assessed as a single project.

2.3.13 There are some large differences in the levels at which thresholds have been set in the three countries. For example, with afforestation projects the area of planting that triggers mandatory EIA is 30 ha in Denmark and 50 ha in Germany. In Holland there are no mandatory thresholds for afforestation but it has set exclusion thresholds of 100 ha or more on agricultural land and 10 ha or more on non-agricultural land. The Danish mandatory threshold for windfarms is 80m height or 3+ turbines, while the German threshold is 35m height or 10MW and with 20+ turbines. Again there is no mandatory threshold for windfarms in Holland and the exclusion threshold is a total capacity of 10 megawatts or 10 turbines. Table 1 provides other examples of mandatory thresholds and Appendix 2 of this report contains tables of thresholds for other project types. The, sometimes, large differences between thresholds are contrary to the spirit of considering the Wadden Sea region as a single ecological system and fail to provide a recognisable 'Wadden Sea perspective' for screening. There cannot possibly be consistency of decision making in screening within the region with such large variations between the thresholds used to decide whether an EIA is required and where the screening criteria of sensitive area is defined differently. It would appear that the three countries of the Wadden Sea have not taken up the opportunity provided by amending Directive 97/11/EC, for a more consistent approach to the establishment of screening thresholds in the Wadden Sea.

2.3.14 Directive 97/11/EC requires competent authorities to provide a public statement on the reasons why a project has been made subject to EIA, there is no provision for explaining to the public why projects have been screened out of requiring an EIA. This notification requirement is largely achieved in the three countries through press notices. To help achieve greater consistency of decision making in the single ecosystem of the Wadden Sea, it would seem logical for the competent authorities to also provide reasons why EIAs have not been required and for these notices to be sent to the CWSS and Inter-Regional Wadden Sea Co-operation (IRWC).

Table 1: Mandatory or Inclusion Thresholds (Annex II)

	Denmark	Germany	Netherlands
Intensive Livestock	Installations with a capacity of 250 livestock units, or more than 210 livestock units for broilers	>2,000 places for pigs (>30kg); > 6,000 places for piglets (up to 30kg) > 750 places for sows; > 42,000 places for hens & turkey hens; > 84,000 places for pullets & fattening poultry. > 350 places for cattle; >1,000 places for calves; > 1,000 places for fur breeding animals;	N/A – No mandatory Annex II thresholds
Roads	Construction of a new road of 4 or more lanes with a length of 2km or more; or Realignment / widening of an existing road so as to provide 4 or more lanes with a length of 2km or more; or Main roads through areas designated as 'nature reserves' in the adopted regional plan	New express roads; or New Federal roads of 4 or more lanes and 5km or more in length; or New Federal roads of 4 or more lanes through realignment +/- widening of an existing road, where the changed section is 10km or more in length	N/A – No mandatory Annex II thresholds
Urban Development	N/A - case by case assessment	Car parks covering 1ha or more; Shopping centres with floorspace of 5,000 sq.m. or more; or other urban development projects with surface area of 100,000 sq.m. or more	Housing development of 2,000 or more dwellings outside the built environment; Housing development of 4,000 or more dwellings in the built environment.

Scoping

2.3.15 The matters to be covered by an EIA are determined through a scoping process. The scoping of an EIA is widely seen as one of the most important parts of the process as it determines the “content and extent” of the information that forms the assessment¹⁰. The EIA Directive permitted Member States to introduce either a mandatory scoping process or to require competent authorities to provide a developer with a scoping opinion if the developer has asked for one. Consultation with the public during the scoping process takes place in Denmark and the Netherlands. In Germany the relevant environmental authorities or agencies are consulted but it is up to the competent authority to decide whether or not the public should be involved. There are no national comprehensive guidelines specifically on scoping in any of the three countries. Equally there are no scoping guidelines that specifically reflect a Wadden Sea perspective.

Consultation

2.3.16 The European Commission has now adopted an amending Directive to transpose the provisions of the Aarhus Convention¹¹ concerning public participation in environmental

¹⁰ See CEC (2001) Environmental Impact Assessment Guidance on Scoping, Brussels, CEC.

¹¹ Adoption and publication of Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC http://europa.eu.int/eur-ex/en/dat/2003/l_156/l_15620030625en00170024.pdf

decision-making into EU legislation. Member States will be required to amend their own EIA legislation to transpose Directive 2003/35/EEC. The definitions provided in the Aarhus Convention are to be inserted into the EIA Directive. Those definitions are as follows:

“the public” means one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups;

“the public concerned” means the public affected or likely to be affected by, or having an interest in, the environmental decision-making procedures referred to in Article 2(2)¹²; for the purposes of this definition, non-governmental organisations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest.

These changes will provide NGOs and others with legal standing in EIA decisions and will provide them with opportunities to challenge decisions through the courts.

2.3.17 All three countries provide opportunities for the public to be consulted on projects and the EIA information during the project authorisation stage. There are some slight but significant differences over the way the three countries determine who should be consulted. In Denmark ‘the public concerned’ is not limited to a geographical area but ‘the right of appeal’ is limited to ‘everyone with a legal interest’, which can include NGOs. In the Netherlands there is also no geographical limit to consultation and “the public concerned” includes all those that wish to participate. All nearby municipalities are consulted on EIA projects as well as lobby or pressure groups. Sometimes Germany is consulted if the project has ‘international relevance’. The German system limits the consultation to the geographical area for which the competent authority is responsible.

2.3.18 The Espoo Convention on EIA in a Transboundary Context was signed in 1991. The Convention deals with both projects and impacts that cross boundaries and does not limit the application of the Convention’s principles to the consideration of projects that are in close proximity to a boundary. The requirements of the Espoo Convention required Articles 7 and 9 of 85/337/EEC to be amended by 97/11/EC to provide for a greater level of information to be made available to affected Member States where a ‘significant transboundary impact’ is identified. The amended Directive does not prescribe the methods of transboundary consultation or the level at which information on projects and impacts are required to be exchanged. The most effective and practical form of transboundary consultation would be at competent authority level, however the EC’s five year review of the operation of the EIA Directive found little evidence of this taking place¹³. In most instances the reliance on

¹² Text of the Common Position adopted by the Council on 25 April 2002, OJ C 170 of 16 July 2002, page 22

¹³ Adoption of the 5 Years Report on the Application and Effectiveness of the EIA Directive (Directive 85/337/EEC as amended by Directive 97/11/EC "How successful are the Member States in implementing the EIA Directive" http://europa.eu.int/comm/environment/eia/report_en.pdf

international treaties means that consultation is largely restricted to national governmental levels. The review of the operation of the EIA Directive in the Wadden Sea region has not discovered any clear single approach to transboundary consultation. From the responses to the questionnaire, it would appear that there is little transboundary consultation on EIA projects unless the competent authority considers there to be significant effects on the neighbouring country. This is a surprising approach within the context of the trilateral agreement and fails to demonstrate a clear and specific Wadden Sea perspective on environmental impacts.

2.3.19 There is no public consultation on screening projects for EIA within the region, although, in some cases, consultation takes place with some public bodies and in Denmark the public can challenge the screening decision. The competent authorities largely see screening as a technical process rather than a political decision. As screening decisions, under the Directive, are based upon the concept of 'significant effects' and as the concept of 'significance' in EIA is largely a value judgement of what is and what is not important, the belief that screening is wholly technical is misguided. Given the policy of co-operation across the Wadden Sea region, it is surprising that there is such little consultation, particularly cross border consultation, at the screening stage. Most public consultation that does take place does so during the scoping process or as part of the project authorisation procedures. In the context of the trilateral co-operation agreement, it is surprising that either the Common Wadden Sea Secretariat or the Inter-Regional Wadden Sea Co-operation (IRWC) are not statutory consultees on EIA projects at the screening, scoping and authorisations stages. It is noted that the Wadden Sea Plan 'invites' competent authorities to submit information on EIAs to the IRWC. To aid consistency of decision making over the region as a whole, this 'invitation' should be strengthened and should go further than just providing information. Based on the spirit of the trilateral co-operation agreements on the Wadden Sea the bodies established to further that co-operation should be involved in the implementation of the key Directives protecting the area as this will help to provide the Wadden Sea perspective for decision making. The amendments to EIA legislation required to transpose Directive 2003/35/EC will provide a major opportunity for changing the consultation process on EIA projects in the region and an opportunity to ensure that at least the Common Wadden Sea Secretariat and the IRWC play more than a peripheral role in the process.

Guidance

2.3.19 National guidelines on EIA have been produced in Denmark: www.mim.dk/lpa. The German Federal Administrative Order on EIA (UVP-Verwaltungsvorschrift) contains guidance on the application of the German EIA Act and some of the Länder have produced their own guidance. In the Netherlands project specific guidelines are produced for the EIS by the competent authority as a requirement of the Dutch EIA legislation. The guidelines for individual projects are drawn up on the basis of the results of a public participation exercise and also

advice from the EIA Commission The competent authority has to formally accept the EIS. This is done by checking the contents of the EIS with the specific guidelines and the review carried out by the EIA Commission. The Dutch EIA Commission reviews each EIS that is produced and make public their report on the adequacy of the statement. The EIA Commission can also participate in the selection of which alternatives are to be assessed. Additional information may be required from developers if it is considered that the information supplied on alternatives is inadequate. In Denmark the impact statement has to be in accordance with Annex IV to the Danish Ministerial Order No. 428, which is similar to Annex IV of the Directive. The German system requires that the EIA information be supplied in full before the licensing procedures for a project can begin. German planning law also requires alternatives to be considered particularly where the decision is made under the planning approval procedure.

Activity

2.3.20 The level of EIA activity in the Wadden Sea region is difficult to establish, as it appears there is little statistical recording of EIA projects in the area. The questionnaire survey asked how many EIAs there had been in the past five years and only one of the respondents were able to provide a figure. A request was made to the IRWC for data on EIA activity in the Wadden Sea region and this too proved to be unsuccessful. An examination of the level of EIA activity in the region as a whole would provide a useful comparison of the implementation of the Directive between the three countries of the region. The IRWC collect information on EIA activity and publish this on their web site. The reports are not all complete and there is little information on how decisions on individual projects were arrived at. The information on EIAs provided on the IRWC web site does not make for easy comparisons over the level of activity as it is not always clear how many of the projects listed were actually subject to an EIA. There is a suggestion within the listed projects that there is a difference between the levels of EIA activity in the three countries. Based upon the European Commission's 5-year review of the operation of the Directive, there are very large differences between the national levels of EIA activity across the three Wadden Sea Member States. Table 2 below provides details of the changes to the levels of EIA activity before and after the implementation of 97/11/EC in 1999¹⁴. Differences in the levels of EIA activity between countries can be accounted for because of a number of factors, including different levels of economic growth and activity – the more economic activity, the more projects, the more EIAs. However, a further explanation is the different screening threshold levels that have been set for projects across the region.

¹⁴ Adoption of the 5 Years Report on the Application and Effectiveness of the EIA Directive (Directive 85/337/EEC as amended by Directive 97/11/EC "How successful are the Member States in implementing the EIA Directive" http://europa.eu.int/comm/environment/eia/report_en.pdf

Table 2: EIA Activity¹⁵

Country	Pre-1999 Per year	Post-1999 Per year
Denmark	28	100
Germany	1000	Estimated increase ¹⁶
Netherlands	70	70

Summary

2.3.21 There are clear differences in the operation of the EIA Directive across the Wadden Sea Region. Screening thresholds have been set at very different levels, the areas established as 'sensitive areas' for screening purposes have been based on different criteria in each of the three countries. There appears to be no common approach to scoping or public consultation. There would also appear to be a difference in the level of EIA activity between the three countries. Within the context of the trilateral co-operation to treat the Wadden Sea as a single ecosystem, it is necessary for there to be consistency in the approach to the application of the EIA Directive. This can only be achieved if decision making on key stages of the process is consistent. For this to be achieved there needs to be a common approach to the establishment of geographical areas where common screening and scoping 'rules' apply. The geographical coverage of screening and scoping 'rules' must reflect the fact that projects located outside of the trilateral co-operation conservation area may have wider effects that have impacts on that area. The discretion permitted by the EIA Directive would allow for the use of the 'sensitive area' concept to be used to define such geographical areas and thus allow for greater consistency of decision making. Furthermore, and this is a major surprise to the research team, the Common Wadden Sea Secretariat and the IRWC play only a peripheral role in the implementation of this key Directive. The requirement to amend EIA legislation to transpose the terms of the Aarhus Convention will offer the Member States of the Wadden Sea an opportunity to increase the role of the Secretariat and the IRWC in EIA procedures.

2.4 The Water Framework Directive

The Directive

2.4.1 The Water Framework Directive (2000/60/EU) is widely considered to be one of the most substantial pieces of EC environmental legislation to date. The Water Framework Directive (WFD) was adopted on 22 December 2000. Member States have three years from that date to transpose it into national law. It places a duty on Member States to ensure that all inland and coastal waters reach "good water status" by 2015. 'Good water status' is defined in terms of specific elements of the water environment including surface water, groundwater,

¹⁵ *ibid*

¹⁶ There is no central or regional data collection of EIA activity in Germany and so these figures must be seen as only estimates.

ecological and chemical content and quality. The specific status of each element is provided in the Annexes to the Directive. The preamble to the Directive states that the successful implementation of the Directive will rely upon 'close co-operation and coherent action at Community, Member State and local level as well as on information, consultation and involvement of the public, including users'. Of particular interest to this study are the Directive's requirements in respect of transboundary arrangements. Article 3 includes the following provisions:

"1. Member States shall identify the individual river basins lying within their national territory and, for the purposes of this Directive, shall assign them to individual river basin districts. Small river basins may be combined with larger river basins or joined with neighbouring small basins to form individual river basin districts where appropriate. Where groundwaters do not fully follow a particular river basin, they shall be identified and assigned to the nearest or most appropriate river basin district. Coastal waters shall be identified and assigned to the nearest or most appropriate river basin district or districts.

3. Member States shall ensure that a river basin covering the territory of more than one Member State is assigned to an international river basin district. At the request of the Member States involved, the Commission shall act to facilitate the assigning to such international river basin districts.

4. Member States shall ensure that the requirements of this Directive for the achievement of the environmental objectives established under Article 4, and in particular all programmes of measures are coordinated for the whole of the river basin district. For international river basin districts the Member States concerned shall together ensure this coordination and may, for this purpose, use existing structures stemming from international agreements. At the request of the Member States involved, the Commission shall act to facilitate the establishment of the programmes of measures.

6. Member States may identify an existing national or international body as competent authority for the purposes of this Directive."

2.4.2 A key aim of the WFD is to integrate the management of water quality and water resources and surface and groundwater management in such a way as to meet stated environmental objectives. The Directive is to be implemented in phases with various deadlines for specific activities leading to a final implementation target of December 2015. There are four key duties imposed by the WFD that are to be dealt with in a staged approach over the first nine years of its implementation. These core duties are:

- review of the status of waters within river basin districts from a water management, ecological and economic perspective;
- monitor the status of waters;
- establish water quality and other environmental objectives for river basin districts; and
- establish the measures, or programme of measures, required to achieve these objectives.

2.4.3 The implementation of the Directive and the setting and achievement of water quality and other environmental objectives and targets is to be based on a river basin district¹⁷ structure. There is a requirement within the Directive for the linkages between surface and groundwater and water quantity and water quality to be taken into account in meeting objectives. There is also a requirement for the integration of the management of Natura 2000 sites and river basin plans, and moreover, consideration must be given to the water needs of wetlands. Article 13 of the WFD requires the development of management plans for each river basin district. These management plans should contain, amongst other factors, the following:

- a general description of the entire river basin district – surface, coastal and ground waters;
- a summary of the protected areas (i.e. Natura 2000 sites), maps of the monitoring network for the bodies of surface and ground waters and protected areas;
- a summary of significant pressures and impact of human activity on the status of surface water and groundwater
- a list of environmental objectives;
- a summary of the economic analysis of water use;
- a summary of the measures required to implement Community legislation for the protection of water;
- a summary of the controls on abstraction and impoundment of water, including reference to the registers and identifications of the cases where exemptions have been made;
- a summary of the controls adopted for point source discharges and other activities with an impact on the status of water
- a summary of measures and programmes adopted to meet objectives and targets;
- a list of competent authorities; and
- a summary of the measures used to involve and inform the public in the development of the plan.

2.4.4 The Directive states that for the co-ordination of administrative arrangements (Article 3), coastal waters¹⁸ and transitional waters¹⁹ are to be identified and assigned to the nearest or most appropriate river basin district or districts. Like other water bodies, coastal waters and

¹⁷ "River basin district" means the area of land and sea, made up of one or more neighbouring river basins together with their associated groundwaters and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins.

¹⁸ "Coastal water" means surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters.

¹⁹ "Transitional waters" are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows.

transitional waters are to be characterised, using a prescribed system. Together with a review of the impact of human activity on the status of surface waters and on groundwater, plus an economic analysis of water use, this characterisation must be completed, at the latest, four years after the date of entry into force of the Directive. Due to the perceived complexity of implementing the WFD, the EU proposed a Common Implementation Strategy (CIS). This has 2 key aims

- to ensure that each Member State has a similar understanding of the Directive
- the sharing of experience and expertise

The timetable for the implementation of the Directive is provided in Table 3 below. The CIS working groups prepared “Guidance Documents” which were been approved in November 2002. The guidance documents are informal and not-legally binding and aim to assist the Member States in the practical implementation of the Directive. Therefore, there is still room for interpretation e.g. concerning the characterisation of surface waters (pressures and impacts, identification of heavily modified and artificial waters), the definition of reference values, the design of the monitoring program and the reporting format.

Table 3: WATER FRAMEWORK DIRECTIVE – TIMETABLE FOR IMPLEMENTATION

Year	Requirement
Dec. 2000	Directive comes into force
By 2003	<ul style="list-style-type: none"> •Transpose requirements to Member State Law •Identify River Basin Districts (RBD) and Competent Authorities
By 2004	Undertake RBD Characterisation <ul style="list-style-type: none"> •Pressures and Impacts upon water status •Economic analysis of water use •Identify heavily modified and artificial waters •Register of Protected Areas
By 2006	<ul style="list-style-type: none"> •Monitoring programmes operational •Publish, for consultation, a work programme for River Basin Management Plan (RBMP) production
By 2007	Publish, for consultation, interim overview of significant water management issues in RBD
By 2008	Publish full draft RBMP for consultation
By 2009	Publish final first RBMP <ul style="list-style-type: none"> •Designate heavily modified water bodies •Environmental Objectives •Programme of measures •Monitoring Networks
By 2010	Introduce pricing policies
By 2012	Programme of Measures operational
By 2013	Review, for the first RBMP <ul style="list-style-type: none"> •Characterisation assessments •Economic Analysis • Publish, for consultation, interim overview of significant water management issues for second RBMP
By 2015	<ul style="list-style-type: none"> •Achieve Environmental Objectives of first RBMP •Publish Second RBMP
By 2021	<ul style="list-style-type: none"> •Achieve Environmental Objectives of second RBMP •Publish Third RBMP
By 2027	<ul style="list-style-type: none"> •Achieve Environmental Objectives of third RBMP •Fourth RBMP

Progress on implementation in the Wadden Sea Region

2.4.5 The implementation of the WFD is at the early stages in the three countries of the Wadden Sea and is largely confined to the establishment of working groups, the development

of guidance and establishing responsibilities. As with the other key Directives, implementation is largely a top-down process with the competent authorities largely led in their actions by national and regional tiers of government. The CWSS has produced a useful overview of the status of implementation of the WFD within the Wadden Sea region. This overview briefly describes work in progress for the period 2001-2002 and 2003-2004. Working groups involved in the Common Implementation Strategy (CIS) include the new *Ecological status* working group and *the River Basin Management* working group. Guidance is to be developed on a range of issues, including management of wetlands, classification of ecological status, harmonisation of typology, assessment of eutrophication, guidance on economic issues and preparation of river basin management plans. The current implementation status of the WFD in the three countries was discussed at a meeting of the Trilateral Monitoring and Assessment Program in Hamburg in May 2003. Table 4 provides a summary of the reports provided at that meeting

Table 4: WFD Implementation Status²⁰

The Netherlands

WFD implementation legislation is already in place in the Netherlands and RBDs have been established. Work is in progress on the analysis required under Article 5 (characteristics of RBDs, review of environmental impact of human activity and the economic analysis of water use) and its subsequent reporting to Brussels. Expert working groups for specific topics (e.g. monitoring, groundwater) have been established at the national level with participation from all concerned ministries, provinces and waterboards. They have the task to 'translate' the contents of the WFD and guidance documents to the situation in the Netherlands. The work is overseen by a national working group on a civil servants' and a political 'steering group'. The whole implementation process is co-ordinated and facilitated by a project team under the lead of Directorate General for Water in Den Haag.

Similar working structures have been established at the river basin districts level. The Dutch Wadden Sea has been assigned to the RBDs Rhine (working area Rhine North) and Ems (working area Ems-Dollart).

Both in Rhine and Ems international contacts and co-ordination exist on a river basin district level. Additionally, some informal working groups have been established to facilitate the work between the national and regional level and between the freshwater and marine institutes. One of the main products so far is a handbook for the WFD implementation; a typology of the Ems-Dollart area is under preparation. All documents are available via the Dutch WFD Website (<http://www.kaderrichtlijnwater.nl>)

Germany

In Germany, the Federal Law on Water Management ("Wasserhaushaltsgesetz") was amended in 2002 according to the WFD. The 16 Federal States who are in charge of the WFD implementation (co-ordination body is the LAWA) have established a work structure for each RBD based upon the existing regional administrations. The LAWA guidance document on the WFD implementation was published in February 2002. For the German Wadden Sea, four RBDs were defined: Ems, Weser, Elbe and Eider.

In Lower Saxony, the RBDs Ems, Weser and Elbe are divided into 32 working areas coordinated by the regional administrations. The Eider RBD in Schleswig-Holstein is co-ordinated by the LANU and is divided into 9 working areas.

The typology of coastal waters (according to system B of the WFD) has been finalised. In the German Wadden Sea, four water body types were distinguished. Another project is currently developing background and reference values for coastal waters. A Dutch-German project on

²⁰ Draft Minutes of the Trilateral Monitoring and Assessment Program: Water Framework Directive and Wadden Sea Meeting in Hamburg, 8 May 2003

the definition of water quality criteria in the Ems-Dollart estuary will start in 2003. A first draft of the 2004-report to the EU will also be prepared by end of 2003.

An information website by the BMU and LAWA has been installed with important documents and links to other relevant websites on federal and state level (<http://www.wasserblick.net>). Another project website gives more general information about the WFD (<http://www.wrrl-info.de>).

Denmark

The Danish national legislation and national guidelines for implementation are currently being drafted and are due to be put before parliament in the autumn of 2003. Guidelines for the WFD implementation are also currently being developed by the Environmental Ministry and will be ready by December 2003. This includes the responsibilities and competence of the single RBD authorities. Based on these guidelines, the technical implementation work by the RBD authorities can start in 2004. About 12 RBD will probably be established in Denmark, two of them including also the Wadden Sea area. The two Danish county councils covering the Wadden Sea will probably be the River Basin District Authorities for the two RBDs adjacent to the Wadden Sea.

2.4.6 It is expected that within the three Member States, the Wadden Sea will be part of 6-8 RBDs, each with an "implementation organisation". However, within each of these RBDs, the Wadden Sea will only be a small part of wider areas and there is a danger that the Wadden Sea perspective may be submerged under sub-national concerns.

WFD implementation issues for the Wadden Sea

2.4.7 A number of points are identified by the CWSS report on implementation of the WFD as requiring specific attention with regard to the Wadden Sea. These concern:

Monitoring guidelines	Number of sites and monitoring frequency, specification of parameters for site selection, priority substance
Delimitation/ Typology	Differences in boundaries between the Wadden Sea Area and the coastal areas of RBDs, division of sub-areas within RBD are carried out in each country separately.
Reference conditions	A number of issues of difference arise between various proposals, e.g. use of the OSPAR Common procedure, eutrophication criteria
Habitat Directive	Use of the TMAP in monitoring, assessment and reporting work on the Wadden Sea

2.4.8 At the Hamburg meeting in May 2003 there was some interesting discussion about the links between the Habitats Directive and the WFD²¹. There appears to be a wide spread recognition amongst the delegates to that meeting and the respondents to the questionnaire for this study that harmonisation between the two Directives is crucial to the implementation of both and that this will require close co-operation between all of the parties involved. In particular, the ecological quality criteria will require close harmonisation with the Habitats

²¹ Draft Minutes of the Trilateral Monitoring and Assessment Program: Water Framework Directive and Wadden Sea Meeting in Hamburg, 8 May 2003

Directive criteria and other conservation legislation and treaties to ensure that the WFD-management plans are consistent between the 8 RBD's and consistent with the Wadden Sea Plan and in line with the "Joint Declaration" for the Wadden Sea. It is a requirement of the Directive that protected areas, along with the surface and ground waters, be mapped and this requirement could be used to make the linkages between the Natura 2000 sites, the WFD and the 'sensitive area' screening criteria under the EIA Directive to create a geographically identified area that encompasses the requirements of all three Directives. Furthermore, Article 6 of the WFD requires that a register of protected areas be established and maintained. This is to cover all areas lying within each river basin (and associated coastal waters) which have been designated as requiring special protection under specific community legislation. The establishment of these areas provides a further opportunity for a co-ordinated approach and for the linking of these areas to N2000 and the 'sensitive areas' concept used in the EIA Directive.

2.4.9 Where it is the case that a river basin identified under the Directive includes areas in two or more Member States, then those states are to endeavour to produce a single river basin management plan (Article 13). Again, this will include associated coastal waters. This requirement will be of particular importance in the Wadden Sea region and there is the potential for combining this requirement with the management plans envisaged under the Habitats Directive and with ICZM (discussed below). Furthermore, the provisions of Article 3(4) make it possible for the use of existing treaties to be the mechanism through which transboundary arrangements for river basin management plans can be developed. The trilateral Wadden Sea co-operation is the obvious forum through which the river basin management plans for the area should be co-ordinated and developed. Yet, as is the case with the Habitats and EIA Directive, it would appear from this study that the Wadden Sea Forum and Secretariat are playing only a peripheral role in the development of WFD implementation strategies of the three countries.

Summary

2.4.10 There is a good deal of confidence within the authorities of the three countries of the Wadden Sea region that the WFD will be successfully implemented within the time-scale provided. There is widespread recognition that a harmonised and co-ordinated approach will be necessary and that this will need to be at all levels of government – horizontal and well as vertical - and across international boundaries. Yet, the implementation of the Directive remains largely based upon a national and regional approach and there is little evidence that a clearly defined Wadden Sea regional perspective is being used. The real success in implementing the WFD in the Wadden Sea region will come when it is seen by all parties as an opportunity to use the guiding principles of the State Declaration and the Wadden Sea Plan – that the Wadden Sea should be considered and managed as a single ecosystem – as the starting point for implementation, rather than something to be considered after adherence

to national legislation. Furthermore, the WFD should be seen as part of the wider package of environmental protection measures that include EIA and the Birds and Habitats Directives. By integrating elements of all these Directives into common procedures, a far more co-ordinated and consistent approach to decision making will be achieved. Furthermore, the linkages between the Directives should provide a key opportunity for establishing the trilateral co-operation as the central focus for ensuring consistency and harmonisation in implementation

2.5 Conclusions

2.5.1 The academic literature review on policy and implementation theory identified the following as key factors in successful policy implementation:

- the policy or legal instrument being implemented must have enforceable legitimate authority;
- the legitimate authority of regimes must be based on inclusive negotiation;
- there must be horizontal and vertical co-operation and co-ordination between implementation agencies;
- there must be consistency of decision-making; and
- agreements on implementation must have 'teeth' and be more than 'paper thin' to ensure compliance.

This review of the implementation of the key Directives has demonstrated that these key factors are not in place. There is little evidence of the day to day horizontal co-operation and co-ordination that is needed and there is little evidence of any mechanisms being in place to ensure consistency of decision making.

2.5.2 Furthermore, the starting point for the implementation of the key Directives should be the policy basis of the Trilateral Wadden Sea Co-operation (TWSC), the Stade Declaration and the Wadden Sea Plan - the need to consider and manage the Wadden Sea region as a single ecosystem. Secondly, the EU environmental Directives should be seen as an integrated whole package of measure that have the single aim of implementing EU wide environmental policy. The requirements of the WFD to integrate river basin management with the requirements of the Birds and Habitats Directives illustrates once again the need to see these Directives as a whole package of measures intended to implement wider EU environmental policy. They should not be seen as individual pieces of legislation to be operated and considered separately. These twin factors – the Wadden Sea perspective and the co-ordination of EU legislation - require greater consistency of decision making across the region as a whole and this consistency can only be achieved through close co-operation and communication at the relevant level of decision making. To achieve this it is necessary to have in place co-operative measures that ensure co-ordination between the agencies responsible for implementing the separate legislative requirements. Thus, an agency, or section within an agency, responsible for implementing the EIA Directive should consult with those responsible for implementing the Birds, Habitat and Water Framework Directives when

making screening decisions. In administrative terms alone, it would seem appropriate in all these circumstances, to widen and strengthen the role of the Wadden Sea Secretariat.

2.5.3 The EU Directives, particularly the Habitats and the WFD include provisions for the development of management plans. There appears to be a real danger that management plans for the area will be largely limited to national and sub-national boundaries. This would represent a missed opportunity. The trilateral co-operation on the Wadden Sea provides an opportunity not available in almost any other area of Europe to ensure that these management plans are developed within a framework of a Wadden Sea perspective, rather than based on national priorities. The WSP provides an excellent starting point for the development of a management plan for the area.

2.5.3 There is wide-spread recognition that the WFD places an added duty on the Wadden Sea authorities for close co-operation. This co-operation is cross-border by definition and the WFD should be seen as an opportunity to strengthen the Wadden Sea co-operation. Furthermore, The integration of the WFD and the Habitats Directive requirements further strengthens the argument that all areas of the Wadden Sea that meet the ecological criteria for designation as candidate SACs should be included in the list. It also furthers the argument that the 'sensitive area' concept from the EIA Directive could be used to provide the bridge between the areas designated as Natura 2000 sites and those areas covered by the WFD. Through the integration of the requirements of the key Directives it would be possible to produce a clearly identifiable geographically defined Wadden Sea region that would be based upon the same criteria in each of the three countries.

3. INTEGRATED COASTAL ZONE MANAGEMENT

3.1 Introduction

3.1.1 This section of the report examines the concept of Integrated Coastal Zone Management (ICZM) and its implications for the management of the Wadden Sea. The review of ICZM is based upon an extensive literature and Web based search that has identified elements of best practice and implementation problems from the application of the concept internationally. In particular the review looked at ICZM practice in north America, Australia and Europe. The section provides definitions of the concept of ICZM, an identification of best practice and a discussion of the implications of adhering to best practice for in the development of a ICZM strategy for the Wadden Sea.

3.2 The ICZM Concept

3.2.1 Integrated Coastal Zone Management is a concept that has developed since the 1970s, eventually becoming a very widespread approach to management of the coastal zone at least in theory if not always in practice. The European Environment Agency's 2003 publication *'Europe's Environment: the Third Assessment'* (EEA, 2003) defines ICZM as a management tool that is "environmentally sustainable, economically equitable and sensitive to local cultures". The concept has grown in importance and significance as it has developed. There are a wide range of world wide political and legislative initiatives that have contributed to the high political profile and status of ICZM. Among these are the UN Convention on the Law of the Sea, the World Commission Report (1987), Agenda 21 and the Convention on Biological Diversity (Rio, 1992), OECD Recommendations (1992), the Framework Convention on Climate Change (FCCC, 1992), the World Coast Conference (1993) and the Jakarta Mandate (1995). Evidence relating to the world-wide uptake of the concept can be seen on www.coastalmanagement.com, which links together sites from around the world. The site lists ten sites for global organisations concerned with ICZM, and an array of other sites/organisations by region.

3.2.2 Coastal zone management is concerned with the planning and management of resources within the coastal area, across the range of habitats and land use types, including land and water management. It relates the management of resources to particular pressures upon the coastal zone and the human activities which take place there (including fishing, tourism, urban and industrial development) as well as the importance of such areas as sites for the conservation of natural habitats and species. The European Commission's Communication Com/2000/547 of 27.9.00 " *On ICZM: a Strategy for Europe*" provides the following definition for the 'integrated' element of ICZM:

"integrated" "refers to the integration of objectives and also to the integration of the many instruments needed to meet these objectives. It means integration of all relevant policy areas, sectors, and levels of administration. It means

integration of the terrestrial and marine components of the target territory, in both time and space”. ²²

This understanding is incorporated into the Inter-regional Wadden Sea Co-operation web document on integrated coastal management²³.

3.3 ICZM in Europe

3.3.1 ICZM is a relatively well established concept in Europe, particularly in the EU Member States. There are currently a significant number of recently completed or on-going activities including preparation of policy documents and guidance materials as well as associated demonstration projects, which aim to explore and promote good practice in ICZM.

3.3.2 In Europe the coastal environment, and man's impacts upon it, have been raised as an issue of concern by the Council of Europe since 1974. Significant integrated planning and management initiatives have taken place since the end of the 1980s especially in the Netherlands, the United Kingdom, as well as Denmark, Germany and Sweden.

3.3.3 The European Union for Coastal Conservation (EUCC) was established by twelve countries in 1989 and now bridges the gap between research, planning and policy, and promoting integrated approaches to conservation and planning. Following the 1991 European Coastal Conservation Conference organised by the EUCC and the Dutch Government, the European Commission was asked to prepare a Community strategy for ICZM. This has subsequently underpinned the development of ICZM in the EU, notably the *EC ICZM Demonstration Programme* conducted between 1997- 1999. One of the demonstration projects was the NetForum project initiated by the IRWC on sustainable tourism in the Wadden Sea Region.

3.3.4 In September 2000 the Commission approved a *Communication to the Council and the European Parliament on Integrated Coastal Zone Management: A Strategy for Europe and a Proposal for a European Parliament and Council Recommendation concerning the implementation of ICZM in Europe. Integrated planning and management issues for coastal areas – the role of the European Union for Coastal Conservation (EUCC)*. The EUCC suggests ICZM has the potential to promote sustainable development along Europe's coasts, combining biodiversity conservation with socially just development and the preservation of the cultural heritage of Europe's coastlines.

EUCC Coastal Code

3.3.5 The EUCC has proposed a Pan-European Code of Conduct for Coastal Zones, to provide practical guidance to public agencies, local authorities, and other coastal users with

²² Com/2000/547 of 27.9.00: Communication.... On ICZM: a Strategy for Europe

²³ www.irwc.ribeamt.dk/integratedcoastal/

regard to ecologically sustainable development in the coastal zone. It is a particularly important guidance note as it seeks to encompass the views and remits of many key players in the management of not only Europe's but also the world's coastal zones. The proposal was formally adopted by European Environment Ministers as part of the *Pan-European Biological and Landscape Diversity Strategy* (PEBLDS). The Strategy is part of the European implementation of the Convention on Biological Diversity, agreed at the 1992 United Nations Conference on Environment and Development (UNCED) Earth Summit. It is being promoted and co-ordinated by several major environmental institutions, including the United Nations Environment Programme (UNEP), the World Conservation Union (IUCN), and the Secretariat of the Ramsar Convention. The Strategy will promote the integration of biological and landscape diversity considerations into social and economic sectors; it acknowledges and promotes such initiatives as the Bern and Bonn Conventions; the Agreement on the Conservation of Seals of the Wadden Sea; the Agreement on the Conservation of Small cetaceans of the Baltic and North Sea (ASCOBANS); etc.

3.3.6 The Code of Conduct provides practical guidelines for the conservation of nature and biodiversity in coastal areas recognising that socio-economic development in these regions will continue to occur. It covers both direct impacts (spatial developments and habitat destruction) as well as indirect impacts (habitat degradation and health impacts on wildlife and humans as a result of pollution). The code of conduct guidelines focus primarily on twelve broad-ranging topics identified in the PEBLD Strategy (see also section 4.5.1) and effectively covering all change in coastal areas . These include, amongst others, Nature Conservation and Biodiversity; Coastal protection; Fisheries and Aquaculture; Tourism and Recreation; Transport; Water Management.

3.3.7 The final Pan-European Code of Conduct for Coastal Zones, approved by the Council of Europe Ministers in 1999, represents a comprehensive effort to put the principles of sustainable development into practice, at all levels of society. The PEBLDS and the EU Code of Conduct principles are summarised together in Table 5 below, as Best Practice Principles for ICZM. Note that there is very close fit between these principles and the operational principles of the Trilateral Co-operation for the Wadden Sea.

European studies of ICZM

3.3.8 A number of studies of ICZM have been undertaken by EUCC members, including habitat surveys, a study on trends and impacts of economic development, analyses of the ecological network of coastal and marine areas (ECMEN) and migration corridors (PECMEC) have been undertaken. European coastal landscapes and ecosystems have been mapped (European Coastal Systems), and studies conducted on planning approaches and ICM-progress in European coastal states, ICM Regional Seas and Country files and the Coastal Guide on Dune Management. Other significant studies include:

- a study on the implementation of ICZM in nine European Countries, was commissioned by the Dutch National Institute for Coastal & Marine Management (RIKZ) *Policy instruments for ICZM in nine selected European Countries*
- a study of *Participation in Coastal Management* in the EU (Davos *et al.* (2002) which investigated attitudes towards stakeholder participation in coastal management and found a general willingness to co-operate amongst stakeholders
- a demonstration programme instituted by the Interior Ministry for Schleswig-Holstein as a means of pursuing sustainable development in the coastal zone adjoining both the North Sea (i.e. the Wadden Sea) and also the Baltic Sea (see *Integrated Coastal Zone Management in Schleswig-Holstein*, published by the Innenministerium des Landes Schleswig-Holstein, undated).

Table 5: Best Practice Principles for ICZM²⁴

PEBLDS: Pan-European Biological and Landscape Diversity Strategy ▪ EU Code of Conduct: Coastal Principles and key elements for management
Careful decision-making Avoidance of potentially damaging activities Precautionary Principle <ul style="list-style-type: none"> ▪ Integrate sectoral development in CZM ▪ Non-development zones (should be established) ▪ Protect coastal land- and seascapes ▪ Protect human lives and settlements ▪ Prevent the introduction of alien species
Translocation of activities which are harmful to the environment <ul style="list-style-type: none"> ▪ Only coast-dependent activities in the coastal zone
Compensation and ecology protection compensatory measures must be implemented where harm cannot be avoided <ul style="list-style-type: none"> ▪ Zero-net loss of coastal habitat
Ecological integrity <ul style="list-style-type: none"> ▪ Maintain and enhance coastal processes ▪ Prevent habitat fragmentation ▪ Create and maintain ecological corridors
Restoration: where possible, parts should be restored if it can be demonstrated by ref. studies that the current situation is not optimal and re-establishment of the original state is possible <ul style="list-style-type: none"> ▪ Coastal Habitat Re-creation
Best Available Techniques and Best Environmental Practice <ul style="list-style-type: none"> ▪ Contaminant - free construction and reclamation ▪ Conservation of water
Polluter pays principle <ul style="list-style-type: none"> ▪ User pays principle: prices charged should reflect all short term and long term economic, environmental and social costs assoc. with the use of coastal resources.
Principles of public participation and public access to information <ul style="list-style-type: none"> ▪ The coastline as public domain ▪ Private ownership of coastline should be avoided. ▪ Restriction of access only in line with nature conservation. ▪ Full involvement of the public on development decisions

²⁴ Source: European Code of Conduct for Coastal Zones, Committee for the activities of the Council of Europe In the field of biological and landscape diversity (CO-DBP) (1999)

EC Recommendation on ICZM (May 30, 2002)

3.3.9 In May 2002 the European Parliament and Council published a Recommendation concerning the implementation of Integrated Coastal Zone Management in Europe (2002/413/EC)²⁵. The recommendation consists of six principal sections, covering a strategic overall approach, a set of principles, national stocktaking, national strategies, co-operation and reporting. These sections are summarised in Table 6.

Table 6: Recommendation of 30 May 2002 on ICZM (2002/413/EC)

This policy statement recommends:

1) that Member States take into account the EU's sustainable development strategy and take a strategic approach to the management of the coastal zones, with due attention to protection of the environment via appropriate measures, the recognition of threats and the requirements of providing sustainable economic and employment opportunities as well as supporting social and cultural systems of local communities;

2) that a set of principles be followed, based on a broad overall perspective, a long-term perspective, adaptive management, local specificity, the need to work with natural processes and to involve all parties concerned, etc.

3) that a national stocktaking be made by Member States to analyse institutional relationships within the coastal zone, looking at the range of activities and areas of relevance (i.e. including fisheries, resource management, agriculture, education, regional development, tourism and recreation, energy, etc.

4) that national strategies be developed based on the stocktaking, which identify administrative actors and the appropriate mix of instruments for implementation of the principles (including necessary land purchase mechanisms, fiscal incentives, etc.), as well as developing legislation, policies, etc. and identifying measures to promote initiatives. Monitoring, training and education are also to be supported by these strategies.

5) that Member States should maintain (and where necessary, enter into) conventions with neighbouring countries to establish mechanisms for better co-ordination of responses to cross-border issues. Member States are also required to work with the range of coastal stakeholders.

6) that Member States report back to the Commission on experience with this recommendation within a specified period.

3.4 Applying ICZM Best Practice to the Wadden Sea

3.4.1 In addition to the European best practice principles discussed above, this review has drawn on other studies and other work to identify principles of best practice in ICZM that will need to be applied in the Wadden Sea. This work includes a review of experience of more than 20 years of practice in North America and Australia. It also includes the work conducted by the United Nations Environment Program (UNEP, 1999), for integrated coastal area and river basin management²⁶ It should be noted that 'best practice' in the context of this study

²⁵ http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_148/l_14820020606en00240027.pdf

²⁶ UNEP and PAP/RAC (1999) *Conceptual Framework and Planning Guidelines for Integrated Coastal Area and River Basin Management* www1.unep.org/icarm

also refers to practices that help to create the most effective and efficient way of achieving the aims of an ICZM strategy.

3.4.2 Drawing on the material discussed above and the other material reviewed for this study, the IAU suggest that the following best practice principles will need to be applied to the development of a ICZM strategy in the Wadden Sea.

An ICZM Strategy for the Wadden Sea must:

- 1 have a legally binding framework – enforceable legitimate authority;
- 2 be built upon high levels of vertical and horizontal co-operation between all tiers of government and government agencies with responsibilities within the region and this co-operation must be cross-border in principle and in practice;
- 3 provide clearly understood roles and responsibilities for all tiers of government and government agencies and there must be a single body with overall co-ordination and strategic decision making responsibilities – this body must enjoy enforceable legitimate authority;
- 4 be based upon the guiding principles of European Environmental policy:
 - tackling problems at their source;
 - prevention of environmental damage;
 - polluter pays;
 - precautionary principle; and
 - sustainable development;
- 5 be developed through the participation of all stakeholders through a clearly defined public participation strategy that includes groups and individuals identified as having an interest in the region following a stakeholder audit exercise;
- 6 have a clear geographical identity, with clearly identifiable boundaries, and be based upon an audit of all resources and socio-economic pressures in the Wadden Sea region (as defined by the agreed geographical extent of the region) and there needs to be full recognition and an assessment of all values and all legitimate community needs for access to resources;
- 7 have policies that cover all sectors of socio-economic activity within the region (including agriculture, fisheries, tourism, service and industrial sectors, transport and construction) and these policies must deal with the interconnections between sectors and the strategy must explain how the policies will contribute to the sustainable social-economic needs of the region as well as the maintenance and enhancement of the ecological integrity and processes of the Wadden Sea, prevent habitat fragmentation and create and maintain ecological corridors;
- 8 have clearly defined and agreed achievable aims and objectives leading to clear achievable outcomes and target dates for their achievement;
- 9 make use of a range of implementation tools that are enforceable and have legitimate authority;
- 10 integrate existing policies, treaties and Directives into the strategy to ensure consistency, compliance and effectiveness;
- 11 be properly resourced so that measures can be used to help eradicate, re-locate or mitigate harmful activities;
- 12 be the subject of a Strategic Environmental Assessment in accordance with Directive 2001/42/EC;
- 13 be the subject of continuous monitoring and there must be clear deadlines for the review of the strategy, its aims and objectives;

3.5 Conclusions

3.5.1 European work involving institutions, studies and demonstration programmes for ICZM has accelerated since the mid-1990s, leading to recommendations for ICZM and a Coastal Code of Conduct, as well as guidance notes for the sectors involved. Internationally

and in Europe, best practice principles have been developed and research into ICZM cases within the EU have led to maps of coastal systems, guidance, an analysis of policy instruments and some thoughts on public participation in ICZM. The trilateral agreements on the Wadden Sea provide a firm basis for the development of an ICZM strategy, but as can be seen from the best practice checklist at 3.4.2 above, many of the elements necessary to create such a strategy are not yet in place. One key requirement is a definitive geographical area that links the socio-economic and the conservation and other resources of the area need to be identified. The development of a Wadden Sea ICZM strategy, that covers the whole of the region, would face many challenges, not least of which would be the need for any strategy to have real teeth and the force of enforceable legitimate authority for its success. However, an ICZM for the Wadden Sea would also present many opportunities, including the close integration of the operation of the Birds, Habitats, EIA and WFD Directives, with other areas of European Environmental Policy, the principles of sustainable development and the key areas of commercial and economic activity in the area.

4. COMMUNITY AND INTERNATIONAL LEGAL INSTRUMENTS, POLICIES AND STRATEGIES

4.1 Introduction

4.1.1 This section of the report examines other key policy and legal initiatives that have implications for the management of the Wadden Sea region. This is not a comprehensive review of all such initiatives; that is beyond the scope of a study of this nature. It concentrates on those areas in EU and international policy and legal developments that have implications for the economic sectors and other activities that are of most importance to the Wadden Sea region. The section is structured around key issues and activities within the Wadden Sea region, rather than particular policy or legal instruments. Appendix 3 provides a list of the key EU and international policy and legislative initiatives relevant to the Wadden Sea, these are grouped under the headings: general, fisheries, marine pollution nature conservation, tourism, and other.

4.2 Biodiversity

4.2.1 Much of section two of this report has dealt with the key European Directives dealing with biodiversity issues. The Birds and Habitats Directives help to meet the EU's responsibilities under international conventions and treaties to maintain and enhance biodiversity. The key international convention on biodiversity stems from the Rio Earth Summit in 1992. The Biodiversity Convention establishes three main international goals: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits from the use of genetic resources. Under the Convention governments are required to provide leadership to those who manage resources (farmers, fishermen, etc.) by developing national biodiversity strategies and action plans, to be integrated into national plans for environment and development. Other commitments include identification and monitoring of biodiversity, establishment of protected areas, restoration of degraded ecosystems, controlling risks affecting resources and promoting public participation and awareness. Regular reporting is a further commitment. (UN Convention on Biological Diversity (CBD) Jakarta Mandate: Protection of marine and coastal diversity www.biodiv.org).

4.2.2 The Cartagena Protocol on Biosafety has been adopted under the CBD and enters into force in September 2003. The Cartagena Protocol seeks to protect biological diversity from potential risks that may be posed by living modified organisms (LMOs) resulting from modern biotechnology. It establishes an advance informed agreement (AIA) procedure for ensuring that countries are provided with prior written notification and information necessary to make informed decisions before agreeing to the first import of LMOs that are to be intentionally introduced into the environment. The Protocol makes reference to the precautionary approach. At the forthcoming Conference of the Parties (CoP) Convention on Biodiversity (Kuala Lumpur, March 2004) there will be a report on the status and

implementation of the Cartagena Protocol and (more importantly) a review and refinement of the thematic programmes on biodiversity of inland water systems and of marine and coastal biodiversity. Additionally there will be a consideration of the draft guideline for activities related to sustainable tourism and biodiversity with a view to identifying case studies for implementation of the guidelines. In all these the WSF could promote themselves as key players in furthering the ultimate goals of the CBD (as stated above).

4.2.3 It was noted in the introduction to this report that the Wadden Sea is a Ramsar Convention site. The Wadden Sea Plan was intended to meet the requirements of the convention, was drawn up and published following the 1997 State Conference (see section 1.4). The Ramsar Convention's mission is "the conservation and wise use of all wetlands through local, regional and national actions and international co-operation, as a contribution towards achieving sustainable development throughout the world." Article 3.1 of the Convention states that "*the Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List [of Wetlands of International Importance] and, as far as possible, the wise use of wetlands in their territory.*" The 'wise use' concept has been defined as "The wise use of wetlands is their sustainable utilisation for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem." (http://ramsar.org/lib_manual_3.htm). The Ramsar Conventions guidance on 'wise use' emphasise the need for institutional arrangements that ensure integrated management of land use planning, economic development and conservation. The 'wise use' concept is a useful framework for inclusion into any ICZM strategy for the Wadden Sea region. Furthermore, Ramsar's Strategic Plan 1997-2002 is oriented, *inter alia*, towards a greater emphasis on strengthened partnerships with other conventions and agencies, especially those linked with the UN Conference on Environment and Development, held in Rio in 1992 (<http://ramsar.org>).

4.2.4 The Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention) was adopted by the General Conference of UNESCO in 1972. The primary mission of the Convention is identifying cultural and natural heritage of outstanding universal value throughout the world, and ensuring its protection through international co-operation. The key and unique feature of World Heritage Sites is that their designation is based not on ecological considerations alone but also on the cultural and educational value of the sites. The application for a site to be inscribed in the World Heritage List must come from the country itself. UNESCO makes no recommendations for listing. The application has to include a plan detailing how the site is managed and protected (<http://whc.unesco.org/archive/out/howtext.htm>). Signatories to the Convention, and in particular those states that put forward sites for designation, must recognise and accept the responsibilities that come with listing – including the internationalisation of responsibilities for the site's protection. In addition, by signing the World Heritage Convention, a country also

pledges to protect the whole of its national heritage, whether or not it is recognised as World Heritage site. The possible nomination of the Wadden Sea national parks and nature reserves or parts of them as a natural World Heritage Site was discussed at the 9th (Esbjerg) Conference 2001. A feasibility study concluded that inscription in the World Heritage List is feasible under the current conservation and management arrangements. If the Wadden Sea does become listed the Convention encourages the responsible states to integrate the protection of the cultural and natural heritage into regional planning programmes and “adopt measures which give this heritage a function in the day-to-day life of the community”. Once again this would provide further encouragement for the development of a ICZM strategy for the Wadden Sea region. However, should such a designation be achieved there is a possibility of long-term increase in tourism within the area and the economic and physical development that goes with it. This tourism would be related to the natural heritage of the area (habitats, species, culture and history) but would increase pressure on resources such as water and transportation infrastructure. This would need to be carefully managed and the three countries of the Wadden Sea may consider an ICZM strategy to be the best way of achieving this control.

4.3 Climate Change

4.3.1 Climate change – both mitigation and adaptation – is a key theme in the EU 6th Environmental Action Programme.

Adaptation:

4.3.2 The ACACIA report on the assessment of potential effects and adaptations for Europe (Parry, 2000) shows the possible thermal and precipitation changes for various emission scenarios for 2002, 2050s and 2080s. It shows the vulnerability of coastal areas to climate change. Possible effects are sea-level rise, surges and over-topping of defences, changes to water quality and fish stocks, to other biodiversity, and to coastal businesses such as tourism.

Mitigation/reduction

4.3.3 The EU is failing to meet its commitments under Kyoto to greenhouse gas reductions, with increases in the last two years (source: European Environment Agency news release, 2003). These were mainly due to increased winter heating (Austria and Finland particularly) and increased transport; although Germany is meeting its targets.

4.3.4 Further efforts will be required to meet the Kyoto commitments such as greater energy efficiency and more pressure for renewable sources. This latter might have implications for the Wadden Sea as will any policies to either reinforce the coastal defences or allow managed retreat in some areas. A report for the Trilateral Working Group on Coastal Protection and sea level rise (Wadden Sea Ecosystem No. 13 – 2001) assessed the possible

impacts of sea level rise and increased storminess for three different scenarios for a time horizon of 50 years. The impacts studied were physical, biological and socio-economic parameters. It was noted that coastal management is changing from trying to control the coast to more dynamic preservation, but there are some conflicts between nature conservation and human use. However, it was concluded that the Wadden Sea has a high resilience to changes, and that the system should be able to adapt to a sea level rise (SLR) of up to 25 cm per 50 years (the most realistic scenario). However, beyond that, and for the worst case scenario of an SLR of 50cm per 50 years, substantial changes will be expected. These include a reduction in the size of the inter-tidal area by up to 15%, with particular impacts on feeding birds, and an increase in erosion of the barrier islands. There will be substantial increased costs for coastal defence, and reduced possibilities for drainage into the sea. The report's main conclusion was the need for integrated policies for coastal defence, nature protection and economic development in the coastal zone, with attention paid to communication of the issues with the public. In considering the Wadden Sea as a single ecosystem there will need to be close co-operation between the relevant authorities to ensure a consistent approach to meeting the challenges of climate change.

4.4 Tourism

International policy on sustainable development and tourism

4.4.1 Ongoing initiatives at the international level include the UN Commission on Sustainable Development and its work on sustainable tourism. The 2002 International Year of Ecotourism (declared by the UN Economic and Social Council) was intended to provide "an opportunity to review ecotourism experiences world-wide, in order to consolidate tools and institutional frameworks that ensure its sustainable development in the future. This means maximising the economic, environmental and social benefits from ecotourism, while avoiding its past shortcomings and negative impacts". The Year of Ecotourism led to the World Ecotourism Summit in Canada in 2002²⁷. Also, ECoNett is the European Community Network for Environmental Travel and Tourism. It provides a database of examples of good practice, projects publications, codes of conduct, etc.

*European policy and activity on tourism*²⁸

4.4.2 There is no EU level formal policy or legislation directly relevant to tourism, however it has been a major focus of EU research and attention due to the importance of the industry to European employment and economic development. In addition to tourism's economic contribution, it also offers significant social benefits in terms of travel and leisure, now available to the majority of European citizens (see the Eurobarometer survey "Facts and Figures on the Europeans on Holidays (March 1998)"²⁹. In its publication *Working together*

²⁷ http://www.ecotourism2002.org/anglais/index_a.html

²⁸ This section is largely based on information derived from the EC's Tourism website: http://europa.eu.int/comm/enterprise/services/tourism/index_en.htm

²⁹ <http://europa.eu.int/comm/enterprise/services/tourism/tourism-publications/documents/eubarholi0398.pdf>

for the future of European tourism³⁰, the Commission highlights the need to enhance co-operation on and the consistency of tourism policies among the stakeholders involved in tourism. These include the European Commission, Member States, regional and local authorities, industry, associations, and tourist destinations. The Commission aims in particular to foster tourism's competitiveness and sustainability. Important issues here are tourism's contribution to sustainable development, with a special focus on environmental and cultural resources. Key activities set out in 'working together for the future of European tourism' include:

- an Annual Tourism Forum to promote co-operation and co-ordination between stakeholders; a wider role for the Advisory Committee on Tourism.
- better networking services and support functions for tourism at all levels;
- financial and non-financial instruments benefiting of the tourism industry
- promoting sustainable development (following and implementing the "Agenda 21" guidelines)
- Defining and disseminating assessment methods and tools (quality indicators and benchmarking) necessary for monitoring the quality of tourist destinations and services.

4.4.3 On 21 May 2002, the Council of Ministers unanimously adopted a resolution, based on the above Commission Communication, to further the new co-operative approach for the European tourism sector, and suggesting closer monitoring of the impact of EU legislation on the tourism sector, as well as further steps towards further promotion of Europe as a destination³¹. Principal current activities in policy development for tourism fall within the following areas:

- Dissemination of information (statistics)
- Improving training and learning
- Improving the quality of tourist products
- Sustainable development (transport, culture), and:
- Managing the impact of new technologies.

4.4.4 In another Enterprise DG publication from the Tourism Unit, Integrated Quality Management (IQM) is proposed as a solution for coastal tourism. Essential to this are economic development, environmental protection and preserving the identity of the local people EC (Enterprise DG, 2000)³². IQM aims to offer visitors a unique and original experience quality coastal tourism, whilst satisfying residents' desire for sustainable local development. The report looks at factors involved in successful preparation, implementation

³⁰ Commission Communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions - Working together for the future of European tourism/* COM/2001/0665 final */

and follow-up of IQM-type initiatives at coastal destinations and provides a digest of recommendations for implementation of IQM. The factors revolve around partnership, design, implementation of IQM, monitoring, evaluation and adjustment of components.

4.4.5 Tourism is and will continue to be a major source of employment in the Wadden Sea region. Its importance may grow with the decline of more traditional industries such as farming and fishing. This will bring pressures for more tourism development with all of the potential that will have on the management of the Wadden Sea as an internationally important habitat. It will be crucial for the future of the Wadden Sea ecosystem that tourism development is properly managed within a framework of sustainability and precautionary principles. The best mechanism for such management would be the use of the ICZM plans discussed in Section Three above.

4.5 Common Fisheries Policy

4.5.1 The main thrust of the European Common Fisheries Policy (CFP) is to reduce the size of the European fleet to aid the replenishment of the major fish stocks. The CFP's main tool of implementation is the use of species quotas and Total Allowable Catches. The three major types of fishing in the Wadden Sea - shrimps, mussels and cockles - are not subject to this quota system³³. There are two European directives related to shellfish quality: the Shellfish Hygiene Directive (91/492/EEC) is a public health control mechanism, prescribing standards for the quality of shellfish sold to the public. The Shellfish Waters Directive (79/923/EEC) prescribes water quality standards within Shellfish waters, and has the well-being of the shellfish population as an indicator of water quality. An example of a coastal forum addressing the problems of shellfisheries is the Solent Forum (see box below).

4.5.2 The EU recognises the importance of coastal waters fishing but considers the main means of managing these fisheries as the ICZM concept discussed earlier. However, fishing within the Wadden Sea is a major issue in terms of the conservation value of the area. The sustainable fishing for shellfish requires adequate management because of the dangers of over exploitation and the effect that would have on the ecology of the area generally and the damage that can be done to the sea bed by certain types of fishing. There is evidence that these concerns are being taken into consideration. Germany and Denmark have, for example, banned cockle fishing, although as was seen in Section Two (see 2.2.17) cockle fishing is still licensed in Holland. The nature conservation NGOs contacted for this study would like to see an extension of controls to cover mussel and shrimp fishing, with reductions or bans put in place to help to maintain the conservation status of the area. This has caused major confrontations and controversy in the past and there have been attempts at instigating co-operative co-management between fishermen and wildlife groups. Rosner & van Dorrien (1997) suggest that mussel fishing in the Schleswig-Holstein part of the Wadden Sea is still

³² http://europa.eu.int/comm/enterprise/services/tourism/tourism-publications/documents/iqm_coastal_en.pdf

too high, despite these attempts at co-management³⁴. Given the general thrust of EU policy towards fishing, the move towards ICZM and the high environmental value of the Wadden Sea area, calls for greater controls over shell-fishing in the area are likely to increase.

The Solent Forum, a group of authorities and agencies involved in planning and management of the Solent area, was set up to consider and provide advice on strategic issues. In 1997, it published Strategic Guidance for the Solent which covers:

- Nature conservation
- Landscape and seascape
- Historic heritage and maritime archaeology
- Ports and shipping
- Marine aggregates
- Oil and gas
- Recreation and tourism
- Naval base and defence interests
- Fisheries
- Marine industries
- Transportation
- Coast protection and sea defence
- Environmental quality
- Safety
- Systems for regulating development
- The planning framework
- Consultation and liaison bodies in the Solent
- Flagship projects.

The Fisheries and Environmental Quality chapters point out that there has been a long-term gradual improvement in water quality, but concerns remain in a number of specific locations. These relate to shellfish, where the identified harvesting areas are more extensive than the identified Shellfish waters. This is a cause for concern, as in the UK only the Shellfish Waters Directive is considered as a statutory “driver” for water quality improvement.

Action proposed by the Forum to bring about improvements includes:

- Establish an agreed position on water quality in the Solent
- Ensure sites for investment in water quality infrastructure have the capacity to meet increased standards in future
- Ensure water quality investment requirements meet the needs of the natural environment
- Ensure that the water quality requirements of the full range of uses of the Solent are taken into account
- Support a greater local input into fisheries management within the CFP
- Support improvements in fisheries legislation and cross-warranting enforcement between the different agencies
- Improve the information base³⁵

4.5.3 As part of any future management of fishing in the Wadden Sea region an ecosystem approach to fisheries management should be adopted as an integral part of any ICZM strategy. This approach would include:

- a demonstration programme on good fishing practice;
- consolidation of appropriate information on fisheries for the purpose of conducting and improving the appropriate assessment, EIA and SEA procedures as they apply to the industry; and
- schemes to provide expertise and equipment to aid more sustainable fishing practices.

4.6 Common Agricultural Policy

4.6.1 The Common Agricultural Policy (CAP) has been the subject of major review and reform over the past decade or so. The reform of the CAP through *Agenda 2000: For a*

³³ http://europa.eu.int/comm/fisheries/doc_et_publ/liste_publi/tac2003/index_en.htm

³⁴ Rosner & van Dorrien (1997). Does co-management help in Wadden Sea fisheries - meeting the protection goals.

³⁵ Source: www.solentforum.hants.org.uk

*stronger and wider Union*³⁶ changed the emphasis of the policy and made a commitment to the reduction of farm price intervention and a movement towards a more sustainable European agricultural policy. Agenda 2000 made rural development a key objective of CAP and introduced measures to encourage organic farming and the establishment of agri-environment schemes. These schemes are intended to support farmers in the reduction of intensive agricultural practices and a move towards more traditional land management and nature conservation. Agri-environment schemes can make a valuable contribution to declining farm incomes and can make a positive contribution to the maintenance and expansion of existing wildlife designations.

4.6.2 The EU Agriculture ministers agreed major reforms to the CAP at the end of June 2003³⁷ as part of the mid-term review. The subsidies based on quantities of food grown will be replaced by a single payment, and the focus shifts from production/output to other objectives for rural development, food safety, environmental protection and enhancement, and animal welfare. While disagreement remains over the extent to which the reforms are radical, individual countries are able to retain the old system to avoid land abandonment, or make more radical reforms, and so there will be greater differentiation between countries. The intervention to support milk, cereal and other product prices will be reduced. The single farm payment comes into force in 2005, or by 2007 where there are transitional arrangements. The intention is to make EU farmers more competitive, but in strengthening the EU's hand over other countries' subsidies, in global trade negotiations, the effect will ultimately be to expose the EU to more global agricultural trade.

4.6.3 Agriculture within the Wadden Sea Region can be divided into two distinct areas – the fertile and productive land on the polders, landward of the dykes and that of the islands where tourism has replaced agriculture as the main economic activity. On the islands agriculture appears to be of a more traditional nature whereas on the mainland farming has become more intensified and industrialised in line with European wide trends. The reduction in farm price support through CAP is likely to bring pressure on the agricultural sector of the region to diversify and this can lead to more pressure for development as farmers seek new forms of income from their land. Other implications for the Wadden Sea may be that mainland farming becomes concentrated on fewer holdings, while more marginal areas come out of production. The increased support for rural development and environmental protection in the Wadden Sea may offset the loss of agricultural support. The effect may be beneficial directly or indirectly (if it results in reduction of application of pesticides and fertilisers) for the Wadden Sea ecosystem.

³⁶ COM(97) 2000

³⁷ European Commission press release IP/03/898, EU fundamentally reforms its farm policy to accomplish sustainable farming in Europe, 26 June 2003

4.6.4 Undoubtedly the aims of the mid term review of CAP will support more appropriate agriculture in coastal zones such as the Wadden Sea. However, attention will need to be paid to how these opportunities provided under Agenda 2000 and the mid-term review are implemented. Existing and future agri-environment measures can contribute to improving conditions in coastal zones, in particular those which finance the maintenance and creation of sympathetic agricultural practice such as the provision of grazing marsh and the upkeep of dykes. It should be noted that in order to receive these payments the land must already be in agricultural management and as a result abandoned areas do not qualify. A problem in the Wadden Sea region is that the participation rate in agri-environment schemes is low as a consequence of higher compensation rates for more mainstream agricultural practices. Hopefully this situation will be rectified under the terms of the mid-term review, but must currently be regarded as a potential threat to the well-being of those areas of Wadden Sea coastline adjacent to agricultural land. All these possibilities reinforce the need for an integrated management of the region and its hinterland. It will be important for the future of the Wadden Sea SACs and SPAs for any ICZM strategy to include a consideration of the agricultural sector. This will require wider co-operation than currently exists and a widening of the area currently covered by the co-operation agreement to take into account the wider responsibilities introduced by the WFD.

4.7 Transport

4.7.1 The EU's Transport Policy White Paper proposes an Action Plan aimed at bringing about substantial improvements in the quality and efficiency of transport in Europe. It is also proposing a strategy designed to break the link between transport growth and economic growth, in order to reduce the pressure on the environment and prevent congestion. The White Paper encourages modal shifts of freight from road to rail and water. To this end the Commission is proposing to concentrate on the missing links in the trans-European high-speed passenger rail network, including airport connections and other infrastructure with the potential for transferring goods from the roads to the railways, sea and inland waterways (http://europa.eu.int/comm/energy_transport/en/lb_en.html). Transport is a crucial policy area that has far reaching implications for regions such as the Wadden Sea. Increases in tourism development in the area are likely to put pressure on the transport infrastructure and an improved infrastructure is likely to further increase tourism and the subsequent development that goes with it. The EU's policy to maximise the use of water borne transport modes will also have implications for the ports in the Wadden Sea area and increased sea and inland waterway use will inevitably increase the risk of pollution. Any ICZM strategy for the Wadden Sea region will have to find mechanisms to deal with the pressures caused by future transport growth in the area.

4.8 Shipping and Harbour Works

4.8.1 Despite existing measures to improve maritime safety adopted by the EU, old and poor quality ships, often loaded with polluting cargoes, continue to sail in European waters and continue to cause pollution through accidents with impunity. Recent accidents, most notably the sinking of the *Prestige* in November 2002 and of the *Erika* in December 1999, have highlighted the need for tightening the laws relating to ship-source pollution. However, the vast majority of maritime pollution incidents do not come from accidents but from routine practices such as discharges. The proposed Directive on 'ship-source pollution and on the introduction of sanctions, including criminal sanctions, for pollution offences' (COM(2003) 92 final, 05/03/2003) will establish that discharges shall constitute a criminal offence and that sanctions, including criminal sanctions, are to be imposed if the persons concerned have been found to have caused or participated in the act by intent or grossly negligent behaviour (http://europa.eu.int/comm/transport/themes/maritime/prestige/com2002-681-final_en.pdf). It is not as yet clear how this system will be policed, but it will have implications for the Wadden Sea region and the level of protection from pollution that the area enjoys.

4.8.2 The proposed Directive (COM(2003) 92 final, 05/03/2003) will supplement existing measure that are provided by the International Maritime Organisation (IMO). Areas requiring special protective action against maritime pollution by the IMO are designated, subject to criteria, as Particularly Sensitive Sea Area (PSSA). Guidelines for designation are given under MARPOL 73/78 and other specific Guidelines. An assessment of the risk to international shipping is made and proposal for associated protection measures, such as appropriate routing, are provided (www.imo.org). Parts of the Wadden Sea were designated as PSSAs by MEPC (Marine Protection Environment Committee of IMO) in October 2002. Protective measures which might be instituted in this area include the establishment of mandatory ship routes in a safer distance from the shore (this will depend on the availability of tug boats); the mandatory reporting of traffic in and through the area; the designation of areas to be avoided and a requirement any ships carrying hazardous substances to be double-hulled.

4.8.3 As a result of both technical change and economic development there has been growing pressure for an expansion of the container port market in northern Europe. The Drewry Report³⁸ states that there has been a 6% growth in container traffic per annum since 1980 and that this is likely to continue. While there is a perceived need for an expansion of capacity to accommodate this growth, there is also a good deal of competition between port authorities and companies to secure a location for this expansion. There are proposals for major projects at Maasvlakte at Rotterdam, Doel at Antwerp, Dibden Bay at Southampton and

³⁸ Drewry Report (1998) North European Container Ports: A '\$2 billion plus' Industry Adapts to Change

Thames Gateway east of London. The nature of these projects is such that their location is almost certain to be in areas where nature conservation is already a priority. Both the Dibden and Thames Gateway projects are subject to both EIA and Habitats Directive assessments, the results of which have not yet been determined.

4.8.4 There are also proposals for new harbour works in the Wadden Sea region including container port development. Projects include a proposed container terminal at Wilhelmshaven and an extension at Bremerhaven. These projects will have major implications for the region both economically and environmentally. The environmental statements produced for the two comparable UK proposals have shown that the projects will have major infrastructure and traffic impacts as well as major economic benefits for the locality³⁹. The physical construction of the Wadden Sea projects will cause significant disruption and environmental damage and the projects will be subject to both EIA and Habitats Directive assessment. The latter will include a determination as to whether alternative locations exist. This question forms a major part of the debate on the two UK proposals. There are questions over whether alternative locations, in the case of major container port development, should include an assessment of all potential locations in the northern European area. It is likely that this matter will eventually be settled by the ECJ.

4.9 Other Initiatives

Aarhus Convention

4.9.1 The UN's Aarhus Convention on 'access to information, public participation and access to justice in environmental matters' is in the process of transposition into EU law. Part Two of the convention deals specifically with public participation in decision-making and has clear implications for very many of the EU's environmental Directives including the Habitats, EIA and IPPC Directives. The EU has adopted a Directive that requires the amendment of the EIA and IPPC Directives (see 2.3.16 above). Directive 2003/35/EEC requires that Article 6(3) of the EIA Directive is effectively replaced by Article 6(2) of the Aarhus Convention. This will require the public to be informed of the following:

- a) the request for development consent;
- b) whether the project is subject to EIA, or, where relevant, transboundary impact assessment;
- c) details of the competent authority;
- d) nature of the possible decisions to be made;
- e) information gathered under Article 5 of the EIA Directive;
- f) main reports and advice issued to the competent authorities during the development consent procedure, including the views of the public authorities or bodies consulted under Article 6(1) of the Directive;

³⁹ Peninsular and Oriental Steam Navigation Company (P&O) (2002) Environmental Statement for a Harbour Empowerment Order for the proposed London Gateway Port. And AdamsHendry Consultants (2000) Environmental Statements for the Dibden Terminal

- g) indication of the times and places where the relevant information can be obtained;
and
- h) details of the relevant national legislation regarding public participation and consultation.

These are the minimum requirements of public involvement in decision making and any ICZM strategy developed for the Wadden Sea should ensure that it is conducted at the very least under the principles of the Aarhus Convention.

SEA Directive

4.9.2 Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment" requires the environmental assessment of a wide range of plans and programmes (PPs). Any begun after 21 July 2004 or completed after 21 July 2006 will require SEA. These plans and programmes are those prepared and adopted within Member States for setting a framework for future development consents, including

- Agriculture
- Forestry
- Fisheries
- Energy
- Waste management
- Water resource management
- Industry (including mineral extraction)
- Telecommunications
- Tourism
- Transport infrastructure (including transport corridors, port facilities and airports)
- Town and country planning or land use

The definition includes those prepared by an authority at national, regional or local level, or required by legislative, regulatory or administrative provisions; and those which set a framework for future development consents under the EIA Directive 85/337/EEC and all those requiring assessment under the Habitats Directive 92/43/EEC. The SEA Directive therefore will have a key role to play in the development of policy in the Wadden Sea region and the principles of SEA assessment will also form an important part of any procedures developed for the creation of an ICZM plan for the region.

4.9.3 Whether SEA is required for certain other PPs (e.g. those determining the use of small areas at the local level) is to be decided by screening – relevant criteria are listed in an Annex to the Directive. These include the relevance of the PP for the implementation of Community legislation on the environment (e.g. for waste and water), and the trans-boundary nature of the effects. Where the implementation of a plan or programme in one Member State

is likely to have a significant effect on the environment of other Member States, provision should be made to consult the MS concerned and the relevant authorities and public. An environmental report must be prepared in which the likely significant effects on the environment of implementing the PP and reasonable alternatives are identified, described and evaluated. This information includes biodiversity, fauna, flora, soil, water and landscape.

- The environmental report and consultation documents are to be taken into account in decision-making
- Information on the decision must be provided to the environmental authorities and the public
- The environmental effects of implementation of the PP must be monitored and remedial action taken where necessary

4.9.4 This Directive is therefore likely to be of major importance to plans for a range of activities affecting the Wadden Sea. Moreover, it provides an opportunity for building in some more strategic questions about the impact of such activities on the sustainability and resilience of the Wadden Sea, for instance with respect to future uncertainties such as climate change.

The European Spatial Development Perspective (ESDP)

4.9.5 The ESDP (CEC, 1999) is a relatively new sphere of action for the EU. It provides three spatial policy guidelines: polycentric development; parity of access to infrastructure and knowledge, and wise management of the natural and cultural heritage. The ESDP highlights coastal zones as representing a particular challenge for EU-wide spatial development, with their conflicts of sectors, multitude of interests, and in many cases decayed natural environments. While the work on the ESDP and the European Strategy on ICZM has been developed in parallel, a number of projects have explored the relationship between ESDP and the management of regional seas, including the Spatial Vision for the North Sea Region. However, none of these has “reached out to the more comprehensive requirements of integrated regional seas management” (Kidd et al, 2003 p. 99).

4.9.6 So what will be the future relationship of ICZM and the ESDP? Kidd et al suggest that there is great potential for deeper spatial and sectoral integration through (a) the concerted management of the seas as a maritime spatial extension of the programmes, and (b) the integrated management of river basins as their territorial spatial extension. Kidd et al have explored the potential application of a framework relating the ESDP’s policy aims to the problems of the coastal zone as cited in the ICZM Strategy for Europe, taking the Irish Sea area as an example. Concern has been expressed at the lack of progress in integrated management in the Irish Sea area in the 1990s. While there have been some innovative efforts at ICZM activity in the area, these have been locally focussed, and have concentrated “on the impact of the sea on the land and protection and management of shoreline and

estuarial habitats rather than taking a broader regional seas perspective” (p.110). Responses to calls for a regional seas management approach have emerged in the areas of the marine environment, fisheries and spatial planning. Kidd et al argue that the ESDP “potentially brings a new dimension to the discussion which may be key to attracting political interest and support” (p.111).

4.9.7 Kidd et al conclude that this approach offers considerable benefits to the Irish Sea. For European ICZM activity in general, they conclude that there is a case for making stronger links between the ESDP and ICZM, especially for cross-boundary co-operation. In particular, this offers scope to bring the forward-thinking and future perspective of the ESDP together with the more process-focus of the ICZM, and to extend the currently “landward” emphasis of the ICZMs into the maritime environment. For ESDP activity, it would bring the benefit of greater understanding of sea-to-land effects (such as the effect of reform of the CFP), and land-to-sea effects (such as tourism coastal development). It would also alert ESDP initiatives to ICZM experience of integrated management for sustainable development, and in particular reinforce the need for ESDP to adopt an ecosystems approach.

4.9.8 Others are more sceptical of the environmental implications of the ESDP, arguing that, as spatial and urban development is evolving as an informal field of action, it is likely to give rise to complex, multi-level systems of implementation, characterised by many actors; in such a complex system it is possible that environmental considerations may be down-played (Leibenath and Pallagst, 2003). They base their arguments on a review of INTERREG and URBAN Programmes, arguing that it is not sensible retrospectively to set environmental aims at the stage of implementing European social and economic policies. “From an environmental point of view,... environmental aims already in the guidance should be given a higher significance” (p. 92). They suggest that, as with the *ex ante* evaluation of Operational Programmes (linked to funding), EIA should be done for all projects funded by EU programmes, and that long-term protection of natural resources should particularly be emphasised in non “environmental protection” programmes such as transportation schemes.

EU TransEuropean Networks: Interreg III

4.9.10 The Interreg III programmes are a EU initiative to encourage transnational co-operation in the EU between 2000 and 2006. The Interreg IIIB programmes cover large transnational areas and the North Sea Region includes the Wadden Sea region. The programme is financed through the European Regional Development Fund (ERDF), and contributions from the countries involved. All funded projects involve the co-operation of two or more countries and the Wadden Sea Forum and Secretariat are partly funded by the programme. Interreg III projects include spatial planning, sustainable management of fish stocks, and sustainable coastal risk management, and maritime litter. This should be seen as a potential source for funding of a major ICZM programme for the whole of the Wadden Sea

region that would act as an example of how such plans could operate in a transboundary context.

Bathing Waters

4.9.11 In October 2002 the EU adopted a proposal for a revised Directive of the Quality of Bathing Water (COM(2002)581). This revised Directive utilises two bacteriological indicator parameters and sets a higher health standard than the 1976/160 Directive. The revised Directive draws heavily upon international epidemiological research and the lessons learned in implementing 1976/160 to generate a system of long-term bathing water quality assessment which seeks to reduce monitoring frequency and associated costs. The implications for these changes will need to be integrated into any ICZM plans prepared for the Wadden Sea region.

EU Urban Waste Water Treatment Directive (91/271/EEC)

4.9.12 The Waste Water Treatment Directive put into European legislation some key aspects of the International Conference for the Protection of the North Sea, in particular the banning of the disposal of sewage sludge at sea. The impact of this on the disposal practices of Member States has been varied, but has had the effect of increased spreading of sewage sludge on land as well as an increase in incineration. The Directive also establishes standards for the treatment levels of sewage that is to be disposed of at sea following treatment. These standards are higher for protected areas such as the Wadden Sea than for other areas. There are many links between the Waste Water Treatment Directive and other Directives including: the Bathing Waters Directive, the Shellfish Hygiene Directive (91/492/EEC), the Shellfish Waters Directive (79/923/EEC) and the Groundwater Directive (80/68/EC). These and other water related Directives establish water quality standards and ban the disposal of material into the protected water system that would exceed these standards. These Directives will have to be considered as part of the overall management requirements for water that will have to be integrated into the implementation of the WFD.

EU Sustainable Use of Plant Protection Products (i.e. Pesticides) policy

4.9.13 The regulatory framework is set out in Directive 91/414/EEC, which defines strict rules for the authorisation of plant protection products, with extensive risk assessments of new products, and maximum residue limits (MRLs). One of the thematic strategies under the 6th Environmental Action Programme is the Sustainable Use of Pesticides, and the Commission has adopted a Communication "Towards a thematic strategy on the Sustainable use of Pesticides" which identifies a number of objectives and possible solutions. Comments were due by November 2002, and the Commission will set out a thematic strategy at the beginning of 2004⁴⁰. This Directive is likely to push farmers towards more sustainable working practices and along with the large package of other environmental legislation and the

⁴⁰ Source: europa.eu.int/comm./environment/ppps/home.htm

reforms of CAP will undoubtedly reduce the risks of the impact of intensive farming on sensitive areas such as the Wadden Sea.

4.10 Summary

4.10.1 From the review of developments in European and international policy and legislation, it is possible to conclude that the trend is towards increasing controls and for greater recognition of the need for international co-operation and action. This trend is taking place within a framework of structural changes in traditional industries such as farming and fishing and the reduction in European subsidies for these industries. These economic changes will undoubtedly produce pressure for action to regenerate the local economy, especially in the tourist and shipping industries. Both activities have the potential for negative impacts upon the conservation value of the Wadden Sea and will need to be carefully managed and monitored. The economic pressures on the Wadden Sea area will require the current co-operative agreements on its conservation and management to be substantially strengthened to ensure consistency of decision making, and to share benefits to conservation and economic interests. As will be noted from the review of EU and international policy and legislation, the IAU is of the opinion that the most effective way of dealing with all of these issues is through the development of a ICZM strategy for the Wadden Sea and its wider region.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 This review has highlighted the very many challenges to the operation of international and European policy and legislation in the Wadden Sea region. The review of the key areas of EU legislation highlighted the difficulties that already exist due to the complex web of competent authorities involved and the seemingly lack of a real sense that they have a specific 'Wadden Sea perspective' when applying the legislation. For the policies and legislation to have real effect they must be implemented consistently. This research has established that there are areas where the key EU Directives are not being applied in the same way across the Wadden Sea region as a whole. This is partly because of the 'top-down' approach to implementation and the apparent lack of cross authority co-operation at the local level, partly because of the discretion allowed by the Directives themselves and partly because the Stade Declaration and the Wadden Sea Plan lack sufficient enforceable legitimate authority to require compliance. The IAU were surprised that the competent authorities of the region do not take advantage of the bodies established to provide a Wadden Sea perspective. The research team was particularly surprised, given the context of the Stade Declaration, that the Wadden Sea Secretariat are not, as a matter of course, consulted on all Habitats Directive Article 6 appropriate assessments and EIA projects that effect the area. The team was also surprised to learn that the development of the ICZM for Schleswig-Holstein did not involve the Wadden Sea Secretariat in anything other than a very peripheral role.

5.1.2 This lack of a 'Wadden Sea perspective' and consistency in implementation does contradict the spirit of the Stade Declaration and the trilateral co-operation commitment, as laid down in the Joint Declaration, to treat the Wadden Sea as a single ecosystem. From this review of the operation of key legislation and the application of policies, it is tempting to conclude that the Wadden Sea co-operation is 'paper-thin' (see 1.3.9 above). Key EIA screening thresholds for projects are set at different levels in the three countries. If the Wadden Sea is a single coherent ecological entity, then the size thresholds, that indicate a 'significant effect' is likely, should be the same across the region, but they are not. There are different approaches to screening and scoping projects for EIA and for the consultation procedures. The research team was particularly surprised that, given the context of the Stade Declaration, the Wadden Sea Secretariat are not, as a matter of course, consulted on all Habitats Directive Article 6 appropriate assessments and EIA projects that effect the area. There appears to be little common approach to the designation of candidate sites under the Habitats Directive. This not only displays a lack of a specific 'Wadden Sea perspective' but also questions the commitment to the concept of Natura 2000 and the treatment of the Wadden Sea as a single habitat. The designation of the candidate SACs should be solely on ecological criteria and, from the maps at Appendix 1, this would appear not to have been the case in the Wadden Sea. This is a short sighted strategy, as areas that meet the ecological

criteria for designation remain protected under Articles 6(3) and 6(4) of the Directive. It is essential to ensure a comparative assessment under these Articles. Furthermore, for administrative purposes, and to ensure that all management of the Wadden Sea is based upon a Wadden Sea perspective, there should be a single area designated to cover all of the sites, rather than very many areas with their own boundaries. This will also ensure that the Wadden Sea is managed as a single coherent ecosystem.

5.1.3 The fragmented implementation and operation of the key EU policies and legislation indicates a lack of awareness that they should be considered as part of a single programme of environmental protection and should be implemented in an holistic manner. The fragmentation of duties and responsibilities under the current EU legislation does not bode well for the implementation of the Water Framework Directive, which requires a much more integrated and co-ordinated approach. The Member States and competent authorities of the region should take the opportunities offered by the implementation of the WFD to more fully develop a specific Wadden Sea perspective and embrace the principles and spirit of the State Declaration. There should be a co-ordinated effort to see the three key Directives as part of a single package and ensure that they are implemented within the overall spirit of EU environmental policy.

5.1.4 There are a considerable number of issues, trends, policies and legal instruments that have the potential to influence the future of the Wadden Sea region. The main challenges come from the increasing development of and dependence upon tourism, as rural and coastal communities experience a decline in incomes from farming and fishing and other more traditional industries. This dependence on tourism will bring with it pressures for development that, if not properly managed, will have the potential for adversely affecting the wildlife interests of the Wadden Sea region. The main opportunities for the future of conservation stem from the increasing policy trend, both internationally and within the EU, for a much more sustainable approach to economic development. The commitment to sustainable forms of development, and the emphasis on strict enforcement of EU environmental legislation within the 6th Environmental Action Programme, should provide some reassurance to those who wish to maintain and enhance the ecological interests of the Wadden Sea. This study suggests that the best way to ensure that environmental and other interests' objectives are met is by the co-ordinated application of all relevant policies through the development and implementation of an Integrated Coastal Zone Management Strategy. This strategy could include the management plan requirements of both the Habitats Directive and the WFD and provide clear guidance on the consistent application of the EIA Directive. However, for such an approach to work all the parties involved must be committed to the best practice principles for ICZM, including the need for such plans to have real enforceable legitimate authority.

5.2 Recommendations

5.2.1 The recommendations set out below are divided into two sections. The first set of recommendations can be termed general or strategic recommendations and the second set are more specific.

Strategic

1) This research has highlighted the lack of region-wide enforceable legitimate authority for the State Declaration and Wadden Sea Plan. The consistent implementation of EU Directives across the region will continue to be weak so long as that authority is missing and it would be difficult, if not impossible, to fully implement an ICZM strategy without such authority. A key recommendation from this study must therefore be for the trilateral agreement to be amended so that the policies it seeks to be enforced have the 'teeth' to ensure compliance. The establishment of such a regime will undoubtedly be politically sensitive and controversial, but in the long term it will be in the interests of all three Member States to cooperate at that level. An agreement to manage the area within a framework of enforceable legitimate authority will ensure that there is a consistent approach to decision making, that the interests of the Wadden Sea come before the administrative interests of individual authorities and that the needs of the social and economic interest of the region are taken fully into account in an integrated and consistent way. The benefits offered by the integrated long term sustainable planning of ICZM will not be realised in the region unless it has the 'teeth' to ensure compliance. A new international regime for the region must be properly resourced and capable of achieving the following:

- coherence and consistency of approach across the region;
- transparency in decision-making;
- maximise the use of expert knowledge and knowledge of local circumstances;
- capacity to ensure observance of regulations; and
- speed of action.

2) In tandem with the establishment of enforceable legitimate authority there needs to be a geographically coherent area that links the protected sites with their inland hinterland. The basis for this area could be formed through the integration of the management plans required by the Habitats and Water Framework Directives and the use of the sensitive area concept from the EIA Directive. The area would need to be large enough to ensure that projects or plans that are outside of designated areas, but have the potential to cause them harm, can be considered in a consistent manner with those that are within protected areas. This would form the basis for a geographically recognisable Wadden Sea 'region' and would be the area to be subject to an ICZM strategy.

3) As mentioned above, ICZM offers major benefits in securing the long term interests of the people of the Wadden Sea region and the wildlife and their habitats. The Wadden Sea Forum might consider recommending to the three governments that a tri-lateral ICZM strategy be developed in accordance with the EU's recommendations of 2002 on ICZM. The Wadden Sea Secretariat might also consider joint initiatives on the European Spatial Development plan (ESDP) and ICZM, and to ensure that environmental considerations, broadly interpreted on an ecosystem basis, are integrated into any ESDP programmes. This programme should be based upon the best practice principles requirements provided in Section 3.4.2 of this report and, as referred to above, should be part of the development of a much stronger trilateral agreement. Also in line with the principles discussed at Section 3.2, the ICZM strategy should have policies that cover all sectors of socio-economic activity within the region (including agriculture, fisheries, tourism, service and industrial sectors, transport and construction) and these policies must deal with the interconnections between sectors and the strategy must explain how the policies will contribute to the sustainable social-economic needs of the region as well as the maintenance and enhancement of the ecological integrity and processes of the Wadden Sea. Furthermore, the development of an ICZM strategy will require the implementation of most of the recommendations of this report including: the identification of a coherent geographical area to be covered by the strategy, enforceable legitimate authority, public inclusion in line with the requirements of the Aarhus Convention, and be based upon a clear integrated research strategy.

4) The Member States should continue to press for World Heritage Site status for the Wadden Sea. That status will bring with it further responsibilities for close co-operation over the management and development of the area that will more effectively be achieved through an ICZM strategy.

Specific

5) In the absence of an agreement to form a new authority for the area, and as a minimum, the Member States of the Wadden Sea region should take the opportunity provided by the transposition of the Aarhus Convention into European Community law to make the Wadden Sea Secretariat a statutory consultee on all projects likely to have significant environmental effects within the region. This would include consultation on appropriate assessments under the Habitats Directive, screening and scoping under the EIA Directive and full participation in the working groups established to implement the WFD. This would provide the specific Wadden Sea perspective into decision making that is currently lacking. The Secretariat does not currently have the resources or the expertise to take on this role, however, as part of a changing role for the secretariat these resources should be provided.

6) The Natura 2000 designation should cover all of the areas designated as SPAs and candidate SACs. As the whole of the trilateral co-operation area has been recognised by the

three Member States as a single coherent ecosystem, then, at the very least, all of the area covered by the Stade Declaration should become part of the Natura 2000 site. To achieve this it will be necessary to ensure that the boundaries of the current candidate SACs are widened to include those areas of the co-operation area not currently designated. Not only is this important in terms of the coherency of the ecosystem and consistency of decision making, it also makes much more administrative sense to have a single area covered by the Natura 2000 designations than very many areas with lots of artificial boundaries.

7) In recognition of the very many different types of designations – Ramsar, PSSA, SPA, Sac etc – and the trilateral agreement, there should be a Natura 2000 management plan for the Wadden Sea. The WSP forms an excellent starting point for the development of such a plan, however, in line with recommendation 1 above, the plan would need to have enforceable legitimate authority. To achieve that authority the plan would need to be an inclusive document that takes into consideration all interests in the region and this would most effectively be achieved if the plan forms part of an ICZM strategy.

8) There needs to be firm guidelines for the completion of appropriate assessments Under Article 6 of the Habitats Directive for the region as a whole. These guidelines should be based upon the EC's methodological guide but reflect the specific characteristics of the Wadden Sea. The guidelines would need to be subject to a consultation exercise with the competent authorities, relevant NGOs and other key interests.

9) The operation of the EIA Directive should be based upon a specific Wadden Sea perspective. That will require greater harmonisation of the screening, scoping and public consultation procedures within the region as a whole. There is a need for greater recognition that projects outside of the co-operation area have the potential to have significant impacts on that area. To this end there needs to be a widening of the 'sensitive areas' so that the inland areas are also considered to form an important part of the Wadden Sea. It will be for the authorities of the region to determine how this broadening of the sensitive area concept would be achieved. However, in line with recommendation 2 above, the EIA sensitive area could be harmonised with any used for an ICZM strategy. Once this area is identified, competent authorities could legitimately take the view that all Annex II projects within that area should be subject to EIA.

10) The basis of a Natura 2000 management plan, management plans for the RBDs under the WFD and a ICZM strategy is a full audit and assessment of the current ecological baseline conditions, the social and economic structure of the region and the impacts these activities have on the ecosystem. Currently it would appear, particularly for the WFD, this work is being carried out separately at a local administrative level. The Member States have agreed through the Stade Declaration and elsewhere that the Wadden Sea is a single

ecosystem. Such an ecosystem cannot be understood by examining its individual parts. Therefore there needs to be a much more integrated research programme that examines the linkages between economic activity and ecological coherence. The three Member States should jointly fund a fully integrated programme of research that will provide a firm basis for the ICZM strategy and the various management plans required by the key Directives.

11) The lack of a clear and specific Wadden Sea perspective on decision making suggests that there is a need for regular training of the competent authority officers who work on the Habitats Directive, EIA, and the WFD. This training should emphasise the ecological coherency of the area, the links between the sea and inland areas and the activities that have the potential to adversely affect the habitats.

Bibliography

- AdamsHendry Consultants (2000) Environmental Statements for the Dibden Terminal, Winchester, AdamsHendry
- Bolshakova, M, G. Krzywkowska, and M Toth-Nagy (2003) Overview of the Institutional and Legal Framework and Practices of Access to Information, Public Participation in Decision-making and Access to justice in Environmental and Health Matters
- Boon, J, H. Kerkamp and L. Dardengo (2002) Alternative dumping sites in the Ems-Dollard estuary.
- Burbridge, P. (2000) The Nomination of the Wadden Sea Conservation Areas as a World Heritage Site: A Feasibility Study, Research Report for the Common Wadden Sea Secretariat, Wilhelmshaven, CWSS
- Common Wadden Sea Secretariat (CWSS) (1999) Wadden Sea: Quality Status Report 1999, Wilhelmshaven, CWSS
- CeC (2001) Community Initiative Programme: Interreg IIIB North Sea Region, CeC
- CWSS (2000) Monitoring the Wadden Sea: The Trilateral monitoring and Assessment Program Wilhelmshaven, CWSS
- CWSS (2000) Stade Declaration: Trilateral Wadden Sea Plan, Wilhelmshaven, CWSS
- CWSS (2001) Coastal Protection and Sea Level Rise: Final Report, Wilhelmshaven, CWSS
- CWSS (2001) Contaminants in Bird Eggs in the Wadden Sea: Spatial and Temporal Trends 1991-2000, Wilhelmshaven, CWSS
- CWSS (2002) An Overview of Policies for Shellfish Fishing in the Wadden Sea, Wilhelmshaven, CWSS
- CWSS (2002) Esbjerg Declaration: Man and Wadden Sea, Wilhelmshaven, CWSS
- CWSS (undated) The Wadden Sea: A shared nature area, Wilhelmshaven, CWSS

County of Sønderjylland and County of Ribe (2001) The Wadden Sea and its Surroundings: Policy Report.

Davos, C., P.Jones, J. Side and K. Siakavara (2002) 'Attitudes towards Participation in Co-operative Coastal Management: Four Case Studies', in Coastal Management 30:209-220.

DEFRA (2002) Safeguarding Our Seas: A Strategy for the Conservation and Sustainable Development of our Marine Environment, London, DEFRA

Drewry Report (1998) North European Container Ports: A '\$2 billion plus' Industry Adapts to Change, London, Stationary Office

Enemark, J. A (undated) Wise use of the Wadden Sea, www.ramsar.org/lib_wise_5.htm

European Communities (2002) Communication from the Commission on the Reform of the Common Fisheries Policy: Roadmap. Brussels, CeC

European Communities (2002) Memo on Commission strategy to protect Europe's most important wildlife areas – frequently asked questions about Natura 2000, Brussels, CeC

European Communities (2002) Communication from the Commission to the Council and the European Parliament: Towards a strategy to protect and conserve the marine environment, Brussels, CeC

European Communities (2001) EU Focus on Coastal Zones: Turning the tide for Europe's Coastal Zones. Brussels, CeC

European Communities (2000) Communication from the Commission to the Council and the European Parliament: On Integrated Coastal Zone Management: A Strategy for Europe. Brussels, CeC

European Environment Agency (2003) Europe's environment: the third assessment, Copenhagen, EEC

The Environmental Management Act Evaluation Committee (Holland) (1996) Towards a Sustainable System of Environmental Impact Assessment.

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany) (2002) Strategy of the German Government on the use of off-shore wind energy.

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany) (2002) Conservation Status and Protection of migratory Species in Germany

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany) (undated) Germany's National Climate Protection Programme: Summary

Hass, E.B (1983) 'Words can hurt you; or, who said what to whom about regimes' in Krasner, S. D (ed) International Regimes, London, Cornell University Press.

Hill, M (1997) The Policy process in the Modern State, London, Prentice Hall, Harvester Wheatsheaf

Hogwood, B. W and L.A. Gunn (1984) Policy Analysis for the Real World, Oxford, Oxford University Press.

ICM Prescriptions (Undated) Prescriptions on Integrated Coastal Management in Major International Agreements, www.icm.noaa.gov/prescriptions

Intergovernmental Committee for the Cartagena Protocol on Biosafety (2002) Decisions adopted by the conference of the parties to the convention on biological diversity at its sixth meeting: The Hague.

IRWC (undated) The Wadden Sea Tourism Project

Jónsdóttir, S. (1999) 'Environmental Assessments – Philosophy, Politics and practice. What can we learn from Nordic studies?' Proceedings from the 3rd Nordic EIA/SEA Conference 22-23 November.

de Jong, F (2000) 'Wadden Sea Targets: Lessons from the First Six Years', Conference paper presented at the 10th International Wadden Sea Symposium.

Kidd S, Massey D and Davies H (2003) 'The ESDP and integrated coastal zone management', in Town Planning Review 74(1) pp. 97-120

Kraemer, R. A, A. Klasing, D. Wilkinson and I von Homeyer (2002) EU Environmental Governance: A Benchmark of Policy Instruments, Belgium Federal Department of the Environment

Krasner, S. D (ed) (1983) International Regimes, London, Cornell University Press.

Ladeur, K-H and Prella, R. (2001) 'Environmental Assessment and Judicial Approaches to Procedural Errors – A European and Comparative Law Analysis', in Journal of Environmental Law, Vol. 13, No. 2, pp. 185-198

Leibenath M and Pallagst K (2003) 'Greening Europe? Environmental issues in spatial planning policies and instruments', in Town Planning Review 74(1) pp. 77-95

Mason, M. (1999) Environmental Democracy, London, Earthscan.

Ministry of Environment and Energy (Denmark) (1997) Guidance on procedures for environmental assessment of bills and other Government proposals

Ministry of Environment and Energy (Denmark) (2000) National Planning report for Denmark

Ministry of Environment and Energy (Denmark) (2000) Ministerial order on supplementary rules pursuant to the Planning Act

Ministry of Environment and Energy (Denmark) (2001) Spatial planning as an instrument for promoting sustainable development in the Nordic countries: Action programme for 2001-2004

Ministry of Environment and Energy (Denmark) (2002) Spatial Planning in Denmark

Ministry of Environment (undated) Balanced Fisheries
www.minlnv/international/policy/fisheries/notutv

Ministry of Housing, Spatial Planning and the Environment (Netherlands) (2001) Making Space, sharing space: Fifth National Policy Document on Spatial Planning 2000/2020

Ministry of Housing, Spatial Planning and the Environment (Netherlands)(1999) Environmental Assessments of Strategic Decisions and Project Decisions: Interactions and Benefits

Ministry of Housing, Spatial Planning and the Environment (Holland) (2000) The Text of the Regulations on Environmental Impact Assessment in the Netherlands

NetForum (2000) Sustainable Tourism Development and Recreational Use in the Wadden Sea Region: Final Report

Peninsular and Oriental Steam Navigation Company (P&O) (2002) Environmental Statement for a Harbour Empowerment Order for the proposed London Gateway Port.

Ramsar Convention on Wetlands (2001) International Environmental Governance: Multilateral Environmental Agreements.

Ramsar Convention on Wetlands (1999) National Report on Germany

Rosner & van Dorrien (1997). Does co-management help in Wadden Sea fisheries - meeting the protection goals.

OSPAR Convention (2001) Convention for the Protection of the Marine Environment of the North-East Atlantic

Southampton Institute (2001) Particularly Sensitive Area (PSSA) Wadden Sea Feasibility Study.

Stoll-Kleemann, S (2001) 'Opposition to the Designation of Protected Areas in Germany', in Journal of Environmental Planning and Management, 44(1) 109-128

Trilateral Governmental Conference (1997) Stade Declaration: Trilateral Wadden Sea Plan

Victor, D.G. K. Raustiala, and E.B. Skolnikoff (1998) The Implementation and Effectiveness of International Environmental Commitments, Cambridge, MA, MIT Press.

Wadden Sea Society (2000) Trilateral Convention on the Protection of the Wadden Sea Region: Final Document.

Wettstad, J.(1999) Designing Effective Environmental Regimes: The key conditions, Cheltenham, UK, Edward Elgar.

Willis, K. G., (1995) 'Judging Development Control Decisions' in Urban Studies, Vol. 32, No. 7, pp. 1065-1079

Working Group of the Federal States on Water Problems (2002) German Guidance Document for the implementation of the EC Water Framework Directive

Review of International Legal Instruments, Policies and Management in respect of the
Wadden Sea Region

Appendix One

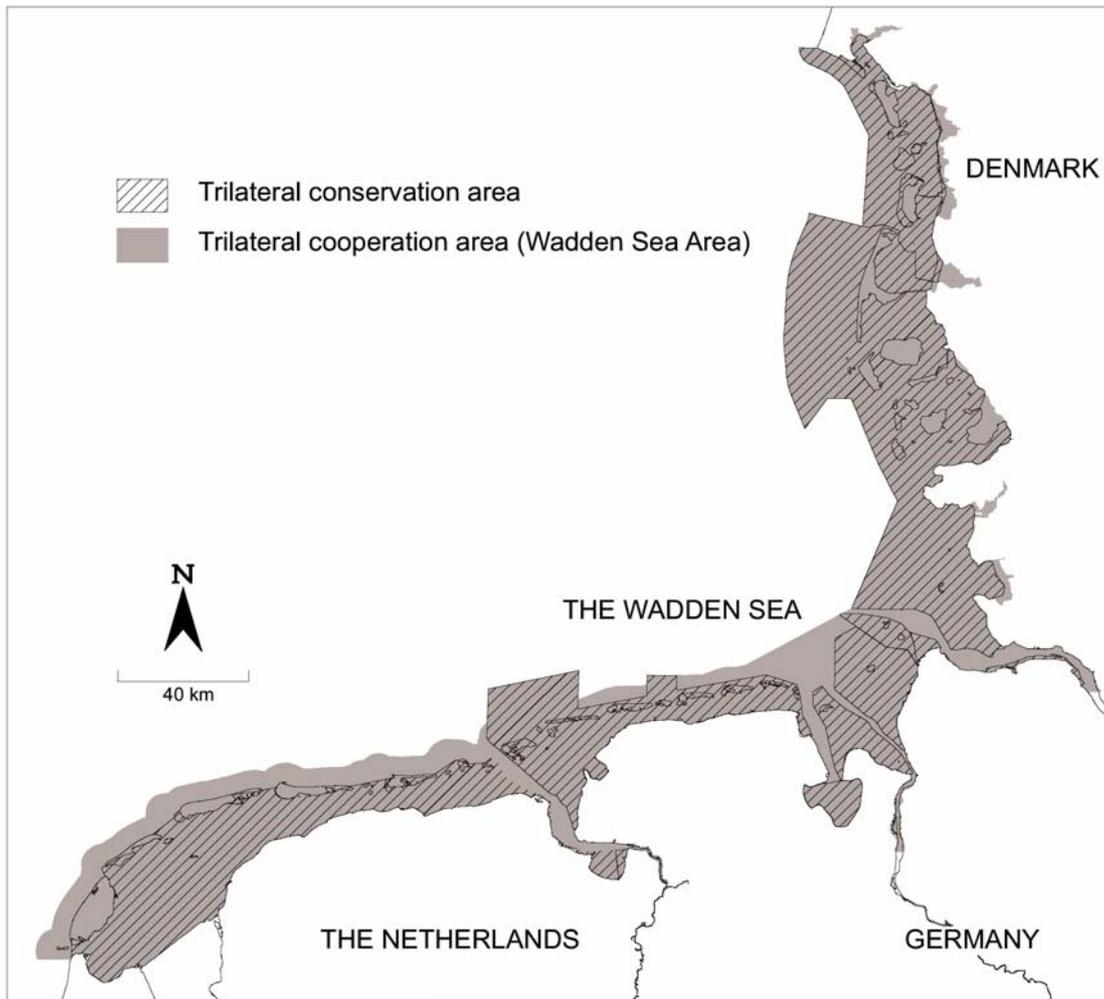


Figure 1. Wadden Sea: areas of trilateral cooperation

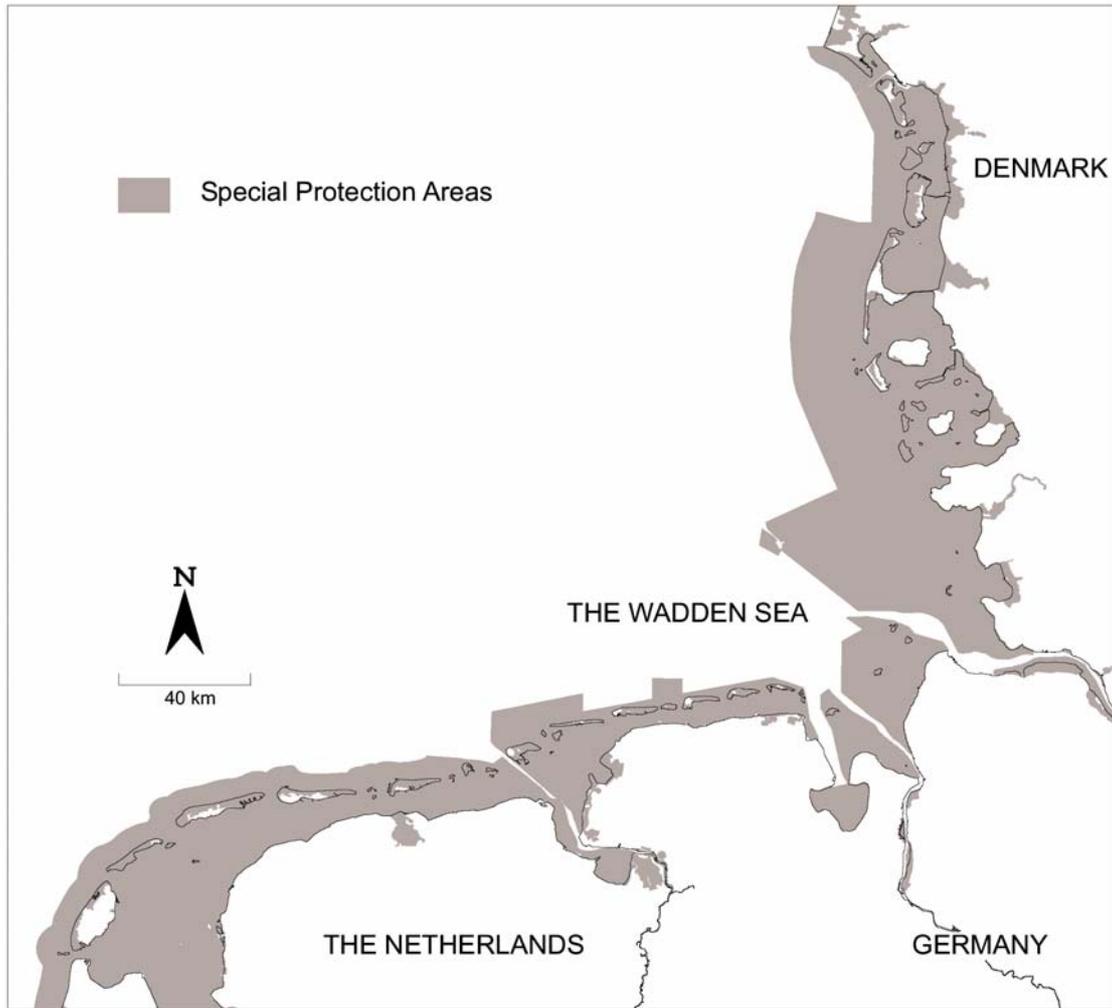


Figure 2. Wadden Sea: protected areas according to EU Birds Directive

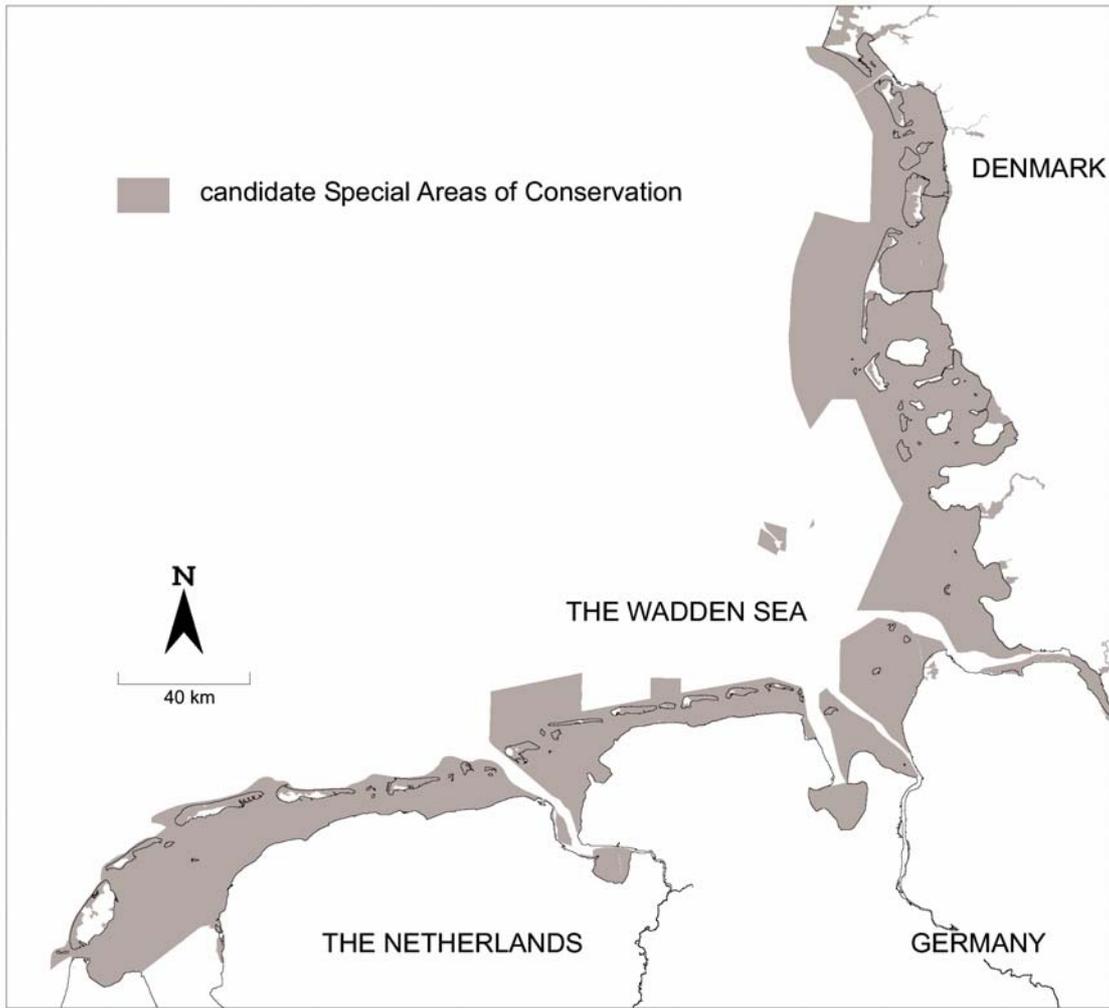


Figure 3. Wadden Sea: protected areas according to EU Habitats Directive

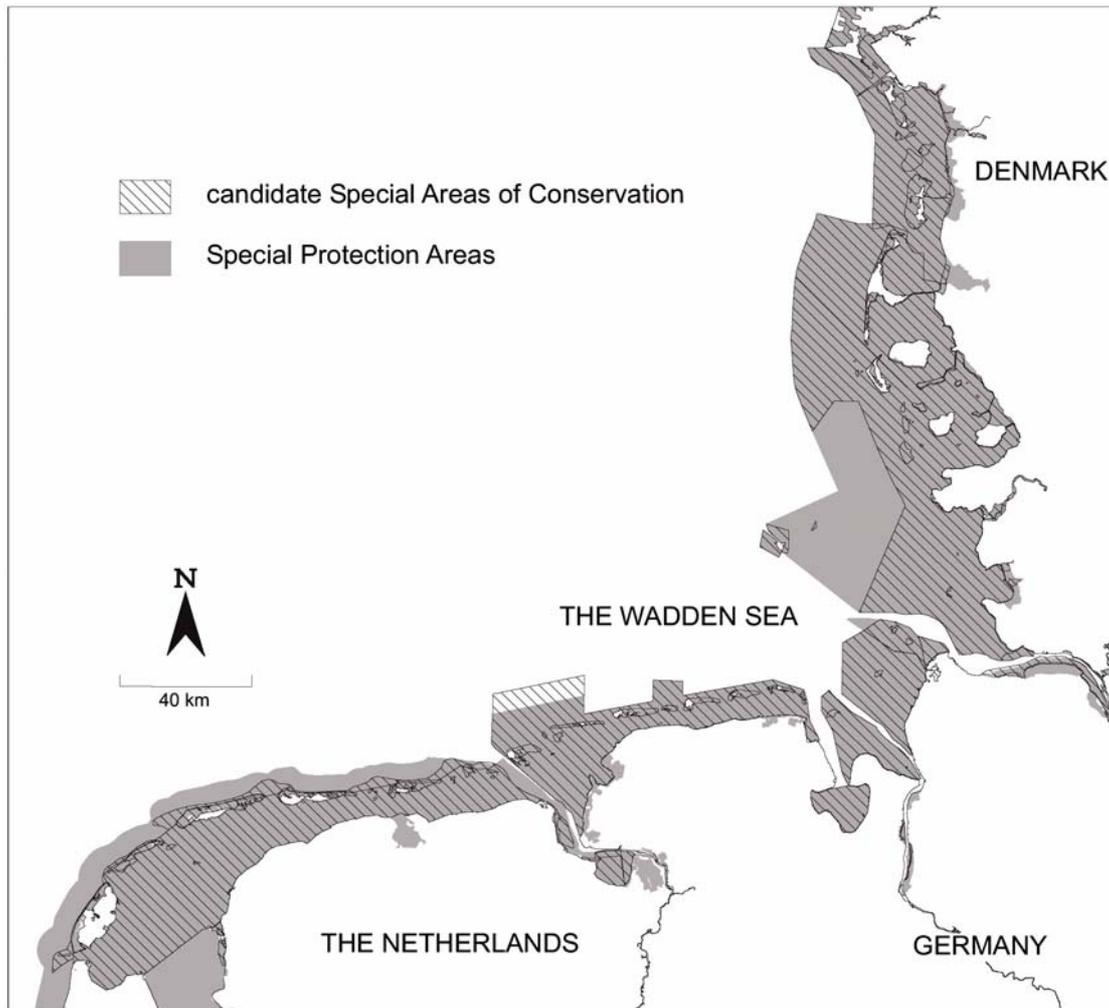


Figure 4. Wadden Sea: areas of EU protection

**Review of International Legal Instruments, Policies and Management in respect of the
Wadden Sea Region**

Appendix Two

Screening Annex II Projects Under Directive 97/11/EC

Germany

In Germany a system of mandatory thresholds is used, above which EIA is compulsory. Below these levels, additional indicative thresholds are also used and these distinguish between “general” and “site-related” screening. For “general screening” criteria based on Annex III of the Directive must be examined in full. For “site-related screening” the thresholds are lower and concentrate on the criteria that relate only to the proposed project site. For some Annex II project types EIA is always required (e.g. construction of railway tracks).

Netherlands

For Annex II projects, thresholds are set above which a case-by-case examination takes place (using Annex III criteria). Below the thresholds no EIA is required. A limited number of thresholds for mandatory EIA exist (e.g. for housing and industrial estate development).

Denmark

As in Germany, EIA is always required for some Annex II projects (e.g. cement manufacture). Annex II projects are screened primarily on a case-by-case basis, using criteria based on Annex III of the Directive. A limited number of mandatory thresholds exist, and below these thresholds a case-by-case approach is taken. There are no exclusion thresholds.

Mandatory or Inclusion Thresholds (Annex II)

	Denmark	Germany	Netherlands
Afforestation	> 30ha in areas where the afforestation is not in accordance with the adopted regional plan	50ha or more of afforestation	– No mandatory Annex II thresholds
Deforestation	Forest > 20 years old and over 30ha in an afforestation area designated in the regional plan and where a comparable area of at least the same size is not afforested.	10 ha or more of deforestation	– No mandatory Annex II thresholds
Intensive Livestock	Installations with a capacity of 250 livestock units, or more than 210 livestock units for broilers	>2,000 places for pigs (>30kg); > 6,000 places for piglets (up to 30kg) > 750 places for sows; > 42,000 places for hens & turkey hens; > 84,000 places for pullets & fattening poultry. > 350 places for cattle; >1,000 places for calves; > 1,000 places for fur breeding animals;	– No mandatory Annex II thresholds
Airfields		Runway length of 1,500m or more	– No mandatory Annex II thresholds
Roads	<ul style="list-style-type: none"> • Construction of a new road of 4 or more lanes with a length of 2km or more; or • Realignment / widening of an existing road so as to provide 4 or more lanes with a length of 2km or more; or • Main roads through areas designated as 'nature reserves' in the adopted regional plan 	<ul style="list-style-type: none"> • New express roads; or • New Federal roads of 4 or more lanes and 5km or more in length; or • New Federal roads of 4 or more lanes through realignment +/-or widening of an existing road, where the changed section is 10km or more in length 	– No mandatory Annex II thresholds
Railways	- case by case assessment	– EIA always required	<ul style="list-style-type: none"> • Addition of 2 or more tracks, which for a length of 5km or more lies in a buffer zone or a sensitive area delineated in a land use plan or regional plan; or

			<ul style="list-style-type: none"> • An entirely new rail track which for a length of 500m or more is located >25m from the boundary of land designated for railway purposes; or • Construction of railway structures & ancillary equipment on land not designated for railway purposes, where these are situated entirely within a buffer zone or sensitive area; or • Resumption of use of an existing railway line which for a length of 5km or more lies in a buffer zone or sensitive area.
	Denmark	Germany	Netherlands
Wind farms	>80 m height or >3 turbines	>35m height or > 10MW and with 20+ turbines	– No mandatory Annex II thresholds
Hydroelectric Plant	- case by case assessment	- case by case assessment	– No mandatory Annex II thresholds
Intermodal Transshipment Facilities	- case by case assessment	– No mandatory Annex II thresholds	– No mandatory Annex II thresholds
Urban Development	- case by case assessment	<ul style="list-style-type: none"> • Car parks covering 1ha or more; • Shopping centres with floorspace of 5,000 sq.m. or more; • or other urban development projects with surface area of 100,000 sq.m. or more 	<ul style="list-style-type: none"> • Housing development of 2,000 or more dwellings outside the built environment; • Housing development of 4,000 or more dwellings in the built environment.
Industrial Estate	– No mandatory Annex II thresholds	Industrial development projects with surface area of 100,000 sq.m. or more.	Site area > 100 ha
Ferrous Metal Foundries	- case by case assessment	Annual production capacity – 200,000 tonnes or more cast iron	– No mandatory Annex II thresholds
Cement Manufacture	– EIA always required	Production capacity – 1,000 tonnes or more / day	– No mandatory Annex II thresholds

Marine Dredging	- No mandatory Annex II thresholds	- No mandatory Annex II thresholds	
Harbours / Ports	- case by case assessment	<ul style="list-style-type: none"> • Dockyard for the construction of sea-going vessels of more than 100,000 tonnes 	
Coastal Defence Works	- case by case assessment	- No mandatory Annex II thresholds	
Waste Disposal	- case by case assessment	<ul style="list-style-type: none"> • Plant for the biological treatment of potentially harmful wastes processing more than 10 tonnes / day • Plant for the chemical treatment of potentially harmful wastes processing more than 100 tonnes / day • Refuse dump for non-hazardous waste handling more than 10 tonnes / day, or with a capacity of 25000 tonnes or more. 	
Waste Water Treatment	- case by case assessment	<ul style="list-style-type: none"> • Plant for treating waste water with a BOD of 9kg/day or 4.5 m³ in 2 hours (excluding cooling water) 	
Tourism and Leisure	Holiday village, hotel complex with a floor space exceeding 50,000m ²	<ul style="list-style-type: none"> • Holiday village, hotel complex or other holiday accommodation with 300 or more beds or 200 or more guest rooms. • Permanent camp site with more than 200 pitches • Recreation park of 10 ha or more 	

Indicative or Guidance Thresholds (Annex II)

	Denmark	Germany	Netherlands
Afforestation	- case by case assessment		Where afforestation relates to land designated for agricultural use and is 100ha or more, or where the land is designated for non-agricultural use and is 10ha or more
Deforestation	- case by case assessment		Where deforestation relates to land designated for agricultural use and is 100ha or more, or where the land is designated for non-agricultural use and is 10ha or more
Intensive Livestock	- case by case assessment	<p>Site-related screening:</p> <ul style="list-style-type: none"> • 1,500-2,000 places for pigs (>30kg); • 4,500-6,000 places for piglets (up to 30kg) • 560-750 places for sows • 15,000-42,000 places for hens & turkey hens • 30,000-84,000 for pullets & fattening poultry; • 250-350 places for cattle; • 300-1,000 places for calves; • 750-1,000 places for fur breeding animals; 	<p>> 2,200 places for production pigs</p> <p>> 350 places for sows</p> <p>> 45,000 places for hens</p> <p>> 60,000 places for broilers</p>
Airfields	- case by case assessment	Case by case screening below mandatory threshold (i.e. runway length < 1,500m)	Runway length of 1,000m or more
Roads	- case by case assessment	Case by case screening for all other Federal roads below the mandatory thresholds	4 or more lanes (not a trunk road, motorway or express road), where the road is 5km or more in length
Railways	- case by case assessment	- EIA always required	
Wind farms	- case by case assessment	>35m height or > 10MW and with 6-19 turbines	10MW or more capacity or 10+ turbines
Hydroelectric Plant	- case by case assessment	Set by Länder	> 2.5MW capacity

	Denmark	Germany	Netherlands
Intermodal Transshipment Facilities	- case by case assessment	- No indicative Annex II thresholds	Area of 25ha or more
Urban Development	- case by case assessment	General screening: <ul style="list-style-type: none"> • car parks covering 0.5-1.0ha; • shopping centres with floorspace of 1,200-5,000 sq.m.; • other urban development projects of 20,000-100,000 sq.m. 	<ul style="list-style-type: none"> • Housing development of 2,000-4,000 dwellings in the built environment; • Other urban development projects covering 100ha or more or with a commercial floorspace of 200,000 sq.m. or more
	Denmark	Germany	Netherlands
Industrial Estate	- case by case assessment	General screening: Industrial development projects with surface area of 20,000-100,000 sq.m.	Industrial estates covering 75-100ha;
Ferrous Metal Foundries	- case by case assessment	General screening: 20 tonnes or more castings per day; Site-related screening: Between 2 and 20 tonnes castings per day	Annual smelting capacity of 15,000 tonnes or more
Cement Manufacture	- case by case assessment	General screening : Production capacity < 1,000 tonnes per day	Annual production capacity of 100,000 tonnes or more
Marine Dredging			
Harbours / Ports	- case by case assessment	General screening: Dockyards for production / repair of hulls or ship sections of 20m or more	
Coastal Defence Works	- case by case assessment		

	Denmark	Germany	Netherlands
Waste Disposal	- case by case assessment	<p>General screening:</p> <ul style="list-style-type: none"> • Burning of waste oil or gas where the plant has a thermal output of 1 MW or more. • Plant for the biological treatment of non hazardous wastes processing 50 tonnes / day • Plant for the chemical treatment of potentially harmful wastes processing between 50 - 100 tonnes / day. <p>Site-related screening:</p> <ul style="list-style-type: none"> • Burning of waste oil or gas where the plant has a thermal output of less than 1 MW. • Plant for the biological treatment of potentially harmful wastes processing < 10 tonnes / day • Plant for the biological treatment of non hazardous wastes processing between 10 - 50 tonnes / day • Plant for the chemical treatment of potentially harmful wastes processing between 10 - 50 tonnes / day. • Refuse dump for non-hazardous waste handling less than 10 tonnes / day, or with a capacity of < 25000 tonnes. 	
Waste Water Treatment	- case by case assessment		
Tourism and Leisure	- case by case assessment	<ul style="list-style-type: none"> • Holiday village, hotel complex or other holiday accommodation with 100 to 300 beds, or between 80 to 200 rooms. • Permanent camp site with 50 to < 200 pitches • Recreation park of between 4 - < 10 ha 	

Appendix Three
Overview of a selection of Regional and Global Conventions, Agreements and Agencies
of relevance to the Wadden Sea

Name, (year) and website	Main objective/task	Contracting Parties / Membership
General		
Convention for the Protection of Marine Environment of the North East Atlantic (OSPAR) www.OSPAR.org	Taking of all possible steps to prevent and eliminate pollution and the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected.	Belgium, Denmark, European Union, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom
European Strategy for ICZM http://europa.eu.int/comm/environment/iczm/home.htm	<p>Following Demonstration programme on ICZM, need for a flexible strategy recognised: integrative, participatory territorial approach to give management that is environmentally and economically sustainable as well as socially equitable and cohesive. Strategy aims to promote a collaborative approach to planning and management of the CZ; the role of the EU is to provide leadership and guidance to support implementation of ICZM at all levels in MSs. Continued collaboration between Commission services also required.</p> <p>The strategy includes a recommendation which encourages Member States to undertake a national inventory of legislation, institutions and actors involved in the planning and management of the coastal zone, and to develop a national strategy to promote ICZM.</p>	EU

<p>European Spatial Development Perspective http://europa.eu.int/scadplus/printversion/en/lvb/g24401.htm</p>	<p>A framework for policy guidance to improve co-operation among Community sectoral policies which have a significant impact in spatial terms. Drawn up because “it was found that the work of the Member States complemented each other best if directed towards common objectives for spatial development”.</p> <p>The ESDP has selected four major areas which interact and exert considerable pressure on the spatial development of the European Union:</p> <ul style="list-style-type: none"> ▪ The development of urban areas: ▪ The development of rural areas: ▪ Transport: ▪ The natural and cultural heritage: 	<p>EU</p>
Fisheries		
<p>EU FIFG Financial instruments for fisheries guidance</p>	<p>The FIFG has to combine two objectives: it must contribute to the aims of the common fisheries policy while playing its part in strengthening economic and social cohesion. It has replaced a variety of budgets set aside for the sector's various branches. The Financial Instrument for Fisheries Guidance can help finance a wide range of projects to restructure the whole industry and also includes social measures.</p> <p>The budget allocated to the FIFG over the 1994 to 1999 period totalled ECU 2 700 million.</p> <p>Its principal measures include the decommissioning of vessels and the creation of joint ventures with foreign investors in order to reduce fishing effort in Community waters.</p>	<p>http://europa.eu.int/comm/fisheries/doc_et_publ/factsheets/facts/en/pcp5_2.htm</p>

<p>EU Common Fisheries Policy http://europa.eu.int/comm/fisheries/doc_et_publ/cfp_en.htm</p>	<p>The common fisheries policy (CFP), is the European Union's instrument for the management of fisheries and aquaculture. It was created to manage a common resource and to meet the obligation set in the original Community Treaties. Because fish are a natural and mobile resource they are considered as common property. In addition, the Treaties which created the Community stated that there should be a common policy in this area, that is, common rules adopted at Community level and implemented in all Member States.</p> <p>Community Fisheries Control Agency proposed in March 2003. Long-term recovery plan for cod proposed, May 2003</p>	<p>EU</p>
<p>Agreement for the Implementation of UNCLOS relating to the conservation and management of straddling stocks (2001) www.un.org/depts/los/index.htm</p>	<p>Providing principles for the conservation and management of those fish stocks and establishing that such management must be based on the precautionary approach and the best available scientific information</p>	<p>Global agreement</p>
<p>FAO Code of Conduct for Responsible Fisheries Food and Agriculture Organisation (FAO) www.fao.org</p>	<p>This Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The Code recognizes the nutritional, economic, social, environmental and cultural importance of fisheries and the interests of all those concerned with the fishery sector. The Code takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users.</p>	<p>Global code adopted 1995, parts based on international law and Law of the Sea</p>

Marine Pollution		
Convention for the Prevention of Pollution from Ships (MARPOL73/78)	Prevention and minimisation of pollution from ships from operational and accidental causes Designation of Particularly Sensitive Sea Areas (PSSAs) (see main text)	Global agreement administered by IMO (see above)
Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances(Bonn Agreement) www.bonnagreement.org	International agreement by North Sea coastal states, together with the EC to offer mutual assistance and co-operation in combating pollution and execute surveillance as an aid to detecting and combating pollution and to prevent violations of anti-pollution regulations.	Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, the United Kingdom, European Union. Ireland is in the process of becoming Contracting Party.
Agreement for Co-operation in Dealing with Pollution due to Hydrocarbons or Other Harmful Substances(Lisbon Agreement)	Co-operation for the protection of the coast and waters of the North-East Atlantic on taking appropriate measures in order to prepare to face marine pollution incidents by oil or other harmful substances (not yet in force).	France, Portugal and Spain
Convention on the Prevention of Marine Pollution by Dumping Wastes and other Matters (London Convention) (1972, revised 1996 - IMO) www.imo.org/conventions	Control of all sources of marine pollution by dumping of wastes.	Global agreement administered by IMO
Stockholm Convention on Persistent Organic Pollutants (POPs) http://irptc.unep.ch/pops	Setting out control measures covering the production, import, export, disposal, and use of POPs (not yet in force).	Global agreement
Rotterdam Convention on Prior Informed Consent for certain Hazardous Chemicals in International Trade http://irptc.unep.ch/pic/	Promoting shared responsibility between exporting and importing countries in protecting human health and the environment from the harmful effects of certain hazardous chemicals being traded internationally.	Global agreement

Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances, 2000 (HNS Protocol) (2000) www.imo.org/home.asp	to provide a global framework for international co-operation in combating major incidents or threats of marine pollution. Parties to the HNS Protocol will be required to establish measures for dealing with pollution incidents, either nationally or in co-operation with other countries. Ships will be required to carry a shipboard pollution emergency plan to deal specifically with incidents involving HNS	Global agreement, administered by IMO
International Convention on the Control of Harmful Anti-fouling Systems on Ships (2001 IMO) www.imo.org/home.asp	Prohibition of the use of harmful organotins in anti-fouling paints used on ships and will establish a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems (not yet in force)	Global agreement administered by IMO
EU Hazardous materials Directive 93/75 on marine pollution HAZMAT http://europa.eu.int	Council Directive 93/75/EEC of 13 September 1993 concerning minimum requirements for vessels bound for or leaving Community ports and carrying dangerous or polluting goods	
EU Community framework for co-operation on accidental marine pollution CM (1998)769 - 1998/0350/COD http://europa.eu.int/comm/environment/civil/marin/mp01_en.htm	The European Commission – Environment Directorate General/Civil Protection and Environmental Accidents Unit – with the help of a Management Committee on Marine Pollution implements the framework for cooperation .	

Nature Conservation		
Agreement on the conservation of small cetaceans of the Baltic and the North Seas(ASCOBANS) (1991 - UNEP/CMS) www.ascobans.org	Regional Agreement under CMS (see below) with a conservation and management plan stipulating measures regarding, <i>inter alia</i> , (a)prevention of pollution, (b) fishing practices, (c) regulation of activities affecting food resources, (d) prevention of disturbances, (e) conduct surveys and research, and (f) enforce legislation that prohibits the intentional taking and killing of small cetaceans.	Belgium, Denmark, Finland, Germany, the Netherlands, Poland, Sweden, United Kingdom

<p>Ramsar Convention http://ramsar.org/key_mab_pjw1.htm also joint UNESCO/Ramsar site: http://www.unesco.org/mab/ramsar_mab.htm)</p>	<p>The Convention's mission is "the conservation and wise use of all wetlands through local, regional and national actions and international co-operation, as a contribution towards achieving sustainable development throughout the world." Wetlands of International Importance Waterfowl Habitat Germany: http://ramsar.org/cop7_nr_germany.htm Netherlands: http://ramsar.org/cop7_nr_netherlands.htm Denmark: http://ramsar.org/cop7_nr_denmark.htm</p>	<p>Global agreement</p>
<p>Trilateral Co-operation on the Protection of the Wadden Sea (CWSS) (1978) http://cwss.www.de</p>	<p>Co-operation on the protection and conservation of the Wadden Sea covering management, monitoring and research, as well as political matters</p>	<p>Denmark, Germany, the Netherlands</p>
<p>UN Convention on Biological Diversity (CBD) www.biodiv.org</p>	<p>Conservation of biological diversity. Jakarta Mandate: Protection of marine and coastal diversity (see main text)</p>	<p>Global agreement (Netherlands not a signatory?)</p>
<p>Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) www.wcmc.org.uk/cms</p>	<p>Conservation of migratory species (avian, marine and terrestrial)</p>	<p>Global agreement</p>
<p>Convention on the Conservation of Wildlife and Natural Habitats in Europe (Bern Convention) www.nature.coe.int/english/cadres/berne</p>	<p>Conservation of wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States, and to promote such co-operation.</p>	<p>Global agreement</p>

<p>EU Habitats Directive (92/43/EEC) (1992) and Birds Directive 79/409/EEC (1979) www.ecnc.nl/doc/europe/legislat/habidire.html</p>	<p>1. to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora 2. measures shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest. 3. these measures shall take account of economic, social and cultural requirements and regional and local characteristics. Annex 1 - habitat types - Natura 2000 network set up</p>	<p>EU countries</p>
<p>Paris Memorandum on Port State Control (Paris MOU) www.parismou.org</p>	<p>Elimination of the operation of sub-standard ships through a harmonised system of port State control</p>	<p>Global agreement</p>
<p>Tourism</p>		
<p>Coastal areas and tourism http://europa.eu.int/comm/enterprise/services/tourism/tourism-publications/documents/iqm_coast_en.pdf</p>	<p>Enterprise DG, Tourism Unit publication: Towards Integrated Quality management is proposed as a solution for coastal tourism. Essential to this are economic development, environmental protection and preserving the identity of the local people. IQM aims to offer visitors a unique and original experience quality coastal tourism, whilst satisfying residents' desire for sustainable local development. 15 case studies described.</p>	<p>EU</p>
<p>Bathing Water Quality Directive http://europa.eu.int/water/water-bathing/</p>	<p>Objectives are: improved health standards, more efficient management including the active involvement of the public and greater flexibility for Member States in implementation. Priorities are improving the level of protection for bathers at the same time as modernising the management of bathing waters via the proactive management of beaches, not just the regular monitoring of water quality. Public authorities should put in place management plans in consultation with the users of beaches.</p>	<p>EU</p>

Other		
<p>International Conferences on the Protection of the North Sea (North Sea Conference - NSC) www.dep.no/md/nsc</p>	<p>Periodic ministerial conferences for a broad and comprehensive assessment of the measures needed to protect the North Sea environment. Themes include Environment & fisheries; under Environment radioactive pollution discharges; under Fisheries: monitoring and management; fishermen's knowledge of stocks North Sea commission Environment Group (NSCEG)</p>	<p>Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, the United Kingdom, European Union</p>
<p>EU Water Framework Directive http://europa.eu.int/comm/environment/water/water-framework/index_en.html</p>	<p>Protection of water quality, including estuarial and coastal areas (see main text)</p>	<p>EU</p>
<p>Convention concerning the protection of the world cultural and natural heritage (UNESCO) www.unesco.org/ World Heritage Site listing: http://whc.unesco.org/nwhc/pages/doc/mainf3.htm</p>	<p>UNESCO's World Heritage mission is to: - encourage countries to sign the Convention and ensure the protection of their own natural and cultural heritage; - encourage States Parties to the Convention to nominate sites within their national territory for inclusion on the World Heritage List; The World Heritage Convention, defines "cultural heritage" and "natural heritage". "Natural heritage" sites have outstanding physical, biological, and geological features; habitats of threatened plants or animal species and areas of value on scientific or aesthetic grounds or from the point of view of conservation.</p>	<p>176 States Parties</p>
<p>UN Convention on Climate Change http://unfccc.int</p>	<p>The Convention sets the overall framework for intergovernmental efforts to address climate change. It establishes an objective and principles, commitments for different groups of countries, and a set of institutions to enable governments to monitor the Convention's implementation and continue their talks on how best to tackle the problem. The <i>ultimate objective</i> of the Convention is "to achieve stabilization of atmospheric concentrations of greenhouse gases at levels that would prevent dangerous anthropogenic (human-induced) interference with the climate system..."</p>	<p>Global agreement</p>

<p>Kyoto Protocol</p> <p>unfccc.int/resource/convkp.html</p>	<p>Annex 1 Parties undertake <i>legally-binding emissions</i> ; also <i>commitments on</i></p> <ul style="list-style-type: none"> • Implementation via <i>domestic policies and measures inc. carbon sinks</i>, also mechanisms – <i>joint implementation</i>, the <i>clean development mechanism</i> and <i>emissions trading</i> • Minimizing impacts on developing countries: including an <i>adaptation fund</i>. • Accounting, reporting and review: including an <i>accounting system</i>, regular <i>reporting</i> by Parties and <i>in-depth review</i>. • Compliance: inc. an enforcement branch 	
<p>UNECE Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention)</p> <p>http://www.unece.org/env/pp/</p>	<p>Three pillars granting different rights:</p> <ol style="list-style-type: none"> 1) the right of access to environmental information; 2) the right to participate in decision-making processes and; 3) the right of access to justice for the public. 	<p>40 signatories, 25 parties</p>
<p>EU Common Agricultural Policy Reform</p> <p>Reform proposals adopted in January 2003</p> <p>http://europa.eu.int/comm/agriculture</p>	<p>The Commission proposal will provide EU farmers with a clear policy perspective to go with the financial framework until 2013 for agricultural expenditure. Reform is intended to make European agriculture more competitive and market oriented, promote a substantial simplification in the CAP, facilitate the enlargement process and help to better defend the CAP in the WTO. The proposed adjustments are intended to allow maximum flexibility in production decisions of farmers while guaranteeing them income stability. Environmentally negative incentives in the current policy would be removed; further encouragement would be available for more sustainable farming practices. The adjustments are designed to provide a sustainable and predictable policy framework for the European Model of Agriculture over the coming years; the changes are made more urgent by the new budgetary framework. Income support for farmers should be more transparent and equitable.</p>	<p>EU</p>

<p>Sixth Environment Action Programme for the European Community http://europa.eu.int/comm/environment/newprg/index.htm</p>	<p>The new programme identifies four environmental areas to be tackled for improvements:</p> <ul style="list-style-type: none"> ▪ Climate Change ▪ Nature and Biodiversity ▪ Environment and Health and quality of life ▪ Natural Resources and Waste 	<p>EU</p>
<p>UNECE Espoo Convention on transboundary impacts http://www.unece.org/env/eia/</p>	<p>The Espoo (EIA) Convention (in force from 1997) stipulates the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.</p>	

