

# Integrated Coastal Zone Management (ICZM) in the Wadden Sea region: analysis of case studies

Synthesis Report



**Client:**  
Wadden Sea Forum  
Wilhelmshaven

April 2009

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# 1. Background

## 1.1 ICZM process in Europe

Integrated coastal zone management (ICZM) is generally recognized as an important approach for incorporating conservation and sustainable use of marine and coastal biodiversity aspects into the planning process. Therefore, the growing concerns about the deteriorating state of the European coast, environmentally, socio-economically and culturally, have prompted the European Commission and Member States, to introduce a range of measures since 1996. The intention is that these will lead to sustainable development of the whole European coast in the future.

The first of these was the Commission's Demonstration Programme. This three-year programme included 35 individual projects and six thematic studies, embracing the Baltic Sea, North Sea and Atlantic seaboard and the Mediterranean Sea, and was launched in 1996.

Based on the results of this programme, the European Commission has subsequently produced two documents on the subject of Integrated Coastal Zone Management. The first of these is a Strategy for Europe concerning the implementation of ICZM throughout the EU coastal states. This 38-point strategy consists of a series of concrete actions building upon existing tools, programmes and resources and is a flexible, evolving instrument designed to cope with the specific needs of the different regions and conditions. The second document is a recommendation that was called for as the first point of the strategy. This recommendation, although not legally binding, has now been adopted by all Member States for implementation.

Member States have been obliged to undertake a national stocktaking that analyzes which major actors, laws and institutions influence the management of their national coastal zone. In addition, they have to develop a national strategy for the implementation of ICZM based on the results of the stocktaking. These national reports were submitted in 2006.

On behalf of the Commission an external evaluation of these national strategies and reports has been carried out as a cross-border analysis (RUPPRECHT CONSULT 2006). This report was the basis for the Communication on the evaluation of Integrated Coastal Zone Management (ICZM) in Europe, (COM (2007) 308). The main statements were as follows:

- Implementation is a slow and ongoing process; more efforts are necessary;
- interpretations of ICZM vary greatly across Europe;
- several relevant, more specific instruments have been formulated;
- no ICZM directive is foreseen at this stage.

The following is recommended for further promotion of ICZM according to COM 2007 308:

- Implementation (or development) of national ICZM strategies;
- clarification of the ICZM principles;
- implementation of the Marine Strategy Directive;
- strengthening of the regional seas conventions;
- strategies to adapt to climate change;
- communication and promotion of good practices regarding ICZM.

However, EU Integrated Coastal Zone Management policy shall also be considered in the broader framework of the future EU Maritime Policy (blue book 2007). As the geographical scope of the maritime policy proposed in this Blue Book includes the coastal zones, Integrated Coastal Zone Management has a role to play in the policy framework proposed. The integrated approach to policy-making applied in the future EU Maritime Policy and its environmental pillar, the EU Marine Strategy Directive (2008), as well as the EU directives implemented in recent years will contribute to improving coordination and integration.

Most recently, for the Mediterranean Sea, a regional framework for ICZM is being developed in the form of a protocol to the Barcelona Convention. However, to this protocol the EU has not become a Contracting Party.

## 1.2 Trilateral Cooperation Wadden Sea

For more than 25 years the Netherlands, Germany and Denmark have worked together in preserving the Wadden Sea, one of the world's most important coastal wetlands. Decisions by consecutive governmental conferences have marked several political milestones throughout the years, e.g. the approval of the Trilateral Wadden Sea Plan (1997), and the cooperation is thus regarded among Europe's "best practice" in cross-border cooperation.

The Wadden Sea Plan embodies:

- A common delimitation of a Wadden Sea Cooperation Area (and Conservation Area);
- a common vision for the Wadden Sea, the guiding principle and the management principles;
- common eco-targets and measures and activities to achieve those targets; and
- implementation of a joint monitoring and assessment programme.

All activities have been coordinated by a common secretariat since 1987.

At the governmental conferences in 2001 and 2005 the cooperation has, on the one hand, widened its scope from "protection of the natural (cultural) resources" into "sustainable development": spatial planning regarding sea level rise and coastal protection, initiating a Wadden Sea Forum and contributions to national ICZM strategies, based on the "Guiding Principle". At the same time the scope of the cooperation has been strengthened to ensure coordinated and consistent implementation of the EU environmental and nature conservation directives.

### 1.3 Wadden Sea Forum and ICZM Working Group

The Wadden Sea Forum (WSF) is an independent platform of stakeholders from the Wadden Sea Region. The WSF was established in 2002, following a decision by the 9th Governmental Conference of the Trilateral Wadden Sea Cooperation. The WSF consists of representatives of the sectors Agriculture, Energy, Fisheries, Industry and Harbour, Nature Protection, Tourism, as well as local and regional governments. The WSF's mission is (among others) to oversee, stimulate, support, facilitate and evaluate implementation of the WSF strategies for sustainable development and to encourage further dialogue between stakeholders in the region.

The Wadden Sea Forum has developed the strategy "Breaking the Ice" (WSF 2005), including a Common Vision and a Wadden Sea Region Integrated Coastal Zone Management Strategy. An ICZM working group has been set up to support implementation of the Wadden Sea Region Integrated Coastal Zone Management Strategy. The former initiated the "Project Analysis ICZM Cases" project in the framework of which this study was carried out.

## 2. Aim and approach

The aim of the "Project Analysis ICZM Cases" (see above) is to identify successes and deficiencies in the application of ICZM as an instrument for achieving sustainable development in the Wadden Sea Region. The results of the project will be discussed at a WSF workshop in 2009 and the outcome of this workshop, if appropriate and after adoption by WSF, will be forwarded as WSF recommendations to governments and the EU Commission.

To this end 8 cases have been described and analyzed, according to the 8 principles from the EU ICZM recommendation (EU 2002; see below). The cases have been divided into two categories, namely structural and projects, the first concerning cases of developments of ICZM management, the second dealing with the application of ICZM in concrete projects.

On the basis of these examples, WG ICZM will continue working on specific proposals for improvement and specification of national ICZM strategies that will be used as input to the implementation of section 13 of the Schiermonnikoog Declaration, which states that the trilateral WSF-9-7-2 ICZM 3 cooperation will, in consultation with WSF, contribute to national ICZM strategies through trilateral coordination.

## 2.1 EU ICZM principles

The European Recommendation on Integrated Coastal Zone Management (ICZM) presents eight principles to guide coastal management in Member States (EU 2002). The recommendation was derived from the European Commission's demonstration programme on ICZM (EU 1999).

The function of the principles is defined as follows: *In formulating national strategies and measures based on these strategies, Member States should follow the principles of integrated coastal zone management to ensure good coastal zone management.....* (EU 2002).

In particular, coastal zone management should be based on (emphasis by BioConsult):

- a) A **broad overall perspective** (thematic and geographic), taking into account the interdependence and disparity of natural systems and human activities with an impact on coastal areas
- b) A **long-term perspective** that will take into account the **precautionary principle** and the needs of present and future generations
- c) **Adaptive management** during a gradual process that will facilitate adjustment as problems and knowledge develop. This implies the need for a sound scientific basis concerning the evolution of the coastal zone.
- d) **Local specificity** and the great diversity of European coastal zones, which will make it possible to respond to their practical needs with specific solutions and flexible measures.
- e) Working with **natural processes** and respecting the **carrying capacity** of ecosystems, thus making human activities more environmentally friendly, socially responsible and economically sound in the long run.
- f) **Involving all partners** concerned (economic and social partners, the organizations representing coastal zone residents, non-governmental organizations and the business sector) in the management process, for example by means of agreements and based on shared responsibility.
- g) Support and involvement of relevant administrative bodies at national, regional and local level between which appropriate links should be established or maintained with the aim of **improved coordination** of various existing policies. Partnership with and between local, regional and national authorities should apply when appropriate.
- h) Use of a **combination of instruments** designed to facilitate coherence between sectoral policy objectives and coherence between planning and management.

Since the publication in 2002 the principles have been used by the Member States in developing national strategies in ICZM or at least national reports. In addition, they have become a yardstick for measuring progress in ICZM (ETCTE 2005; RUPPRECHT CONSULT 2006; see below).

## 2.2 Analysis of case studies

In a first step 8 cases have been described and analyzed according to the 8 principles from the EU ICZM recommendation (see below). This has been mainly performed by Marcus Lange (ML) and Maarten Wegen (MW). The cases have been divided into two categories, namely structural and projects, the first concerning cases of developments of ICZM management, the second dealing with the application of ICZM in concrete projects.

### A. Structural

- Trilateral Wadden Sea Cooperation (ML)
- Island and Hallig Conference (ML)

### B. Projects

- Gas exploitation NL (MW)
- Mussel Fishery NL (MW)
- Operation Corncrake DK (MW)
- Ems Barrage (ML)
- Jade-Weser Port (ML)
- Mussel Fishery Schleswig-Holstein (ML)

The evaluation was carried out for each project for each of the 8 principles. The resulting report (WSF 2008) forms the main basis for the synthesis report and is attached to the latter.

## 2.3 Integrative analysis

The analyses of the 8 cases (WSF 2008) are evaluated comprehensively in summary form for various identified project groups, on the one hand, and for each of the 8 principles, on the other hand. In our study the assessments of the authors of the WSF (2008) regarding the individual cases are not reviewed or questioned. The results will be discussed and classified against the background of the ICZM prospects.

However, based on our understanding of the intention of ICZM and the ICZM principles and our experience with planning processes, we found the evaluation in WSF (2008) somewhat too positive at times. We will therefore add findings from the RETRO project (chap. 4.8) and from a trilateral perspective (chap. 3.2).

## 3. Integrative analysis

### 3.1 Analysis according to project groups

The 8 projects analyzed in the WSF (2008) represent a broad spectrum of activities in the Wadden Sea. For the purpose of analysis they can be allocated to the following groups:

A. Construction and Exploitation Projects: Gas exploitation NL; Ems Barrage; Jade-Weser Port.

B. Fishery: Mussel Fishery NL; Mussel Fishery Schleswig-Holstein.

C. Nature protection: Operation Corncrake DK.

D. Cooperation: Island and Hallig Conference; Trilateral Wadden Sea Cooperation.

The results of the analysis of the projects are presented in summary form in the table below. We categorized the evaluation results on the basis of the verbal descriptions in the WSF (2008). The summary analysis of the assessments clearly indicated that the interpretation of the principles by the two authors involved differed in some cases, which had a substantial influence on the evaluations.

*Conclusion 1: The principles are formulated in a very open manner and leave a great deal of room for interpretation regarding their implementation (without further specification, therefore, they are suitable as a yardstick for evaluation only to a limited extent).*

The results of the overall assessments show that some projects are in good accordance with the EU principles while others partly comply with them and a third group is in less accordance. It is possible here to identify differences between the different project types.

In the group of Construction and Exploitation Projects (3 projects) two projects are assessed as in less accordance and one as in good accordance. All three projects represent larger-scale interventions in the environment that are accompanied in part by vehement controversy. This type of project can certainly be viewed as a special "acid test" for implementation of the ICZM principles.

On the one hand, such projects take place within the framework of formal approval procedures, which in the Netherlands, Germany and Denmark provide for extensive participation on the part of the public, in which an examination of alternatives and environmental impacts is stipulated and which require a certain coordination between the authorities. For this reason application of the principles is, for the most part, already mandatory here. This also leads to a positive assessment of the Gas Exploitation project in the Netherlands since the respective author focused in particular on the formal application. The author of the two projects in Germany, by contrast, expects specific further-reaching aspects for good implementation of the principles.

On the other hand, implementation of the principles in such controversial procedures also represents a special challenge to all actors. Aspects like broad overall perspective and precautionary principle may not be given the importance necessary here to refer to a comprehensive implementation.

*Conclusion 2: In principle, the process in formal approval procedures for large-scale projects predominantly complies with the ICZM principles, though clear deficiencies are still perceptible with regard to design and implementation in detail.*

In the group of Fishery Projects (2 projects) one project is assessed as partly in accordance and one as in good accordance. Both of them involve mussel fishery in the Wadden Sea, which is regulated through management plans. The procedure for drawing up the plans extensively complied with the principles. The restrictions applying to evaluation of the Dutch management primarily result from different assessments regarding what quantities of mussels can be harvested without jeopardizing their sustainability. This is evidence of how important a good knowledge base is for implementation of the ICZM principles. The compromises made in connection with preparation of the plans clearly indicate, as was the case to some extent in the group of Construction and Exploitation Projects, how important a similarly strong position of the actors involved is.

*Conclusion 3: The preparation of management plans extensively conforms with the ICZM principles. One of the reasons for this is a similarly strong position of the various actors. This appears to be a major prerequisite for successful implementation of the principles.*

The only conservation project analyzed involved implementation of use changes in grassland along the Vard Aa estuary jointly with agriculture and nature conservation within the framework of an EU-supported project. Implementation of this project complied with the principles to a very great extent. Since the project could only be carried out on a voluntary basis, a broad-based approach oriented to the principles was absolutely imperative. This certainly made a major contribution to the success of the project and the extensive funding available definitely facilitated this success as well.

**Table 1:** Summary of the results of the case analysis (WSF 2008). The evaluation in the WSF (2008) report is provided as a verbal description. Categorization in the table was carried out by BioConsult. Activity in accordance with the ICZM principles: good (+), partly (+-), less (-). ?: statements in WSF 2008 not clear. (1) Overall assessment not comprehensible on the basis of the analysis.

<b>EU ICZM principles</b>	<b>Gas exploitation NL</b>	<b>Ems Barrage D</b>	<b>Jade-Weser Port D</b>	<b>Mussel Fishery NL</b>	<b>Mussel Fishery Schleswig-Holstein D</b>	<b>Operation Corncrake DK</b>	<b>Island and Hallig Conference D</b>	<b>Trilateral Wadden Sea Cooperation NL, D, DK</b>
<b>a) broad overall perspective</b>	+	+-	+-	-	+	+	+	+/-/+
<b>b) long-term perspective; precautionary princ.</b>	+	+-	+	-	+	+	+-	+-
<b>c) adaptive management</b>	+	+-	-	+	+	+	+-	+-
<b>d) local specificity</b>	+	+	+	+	+	+	+	+
<b>e) natural processes; carrying capacity</b>	+	+	+	+	+	+	-	+
<b>f) all partners involved</b>	+	+-	+-	+	+	+	+	+-
<b>g) improved coordination (administrative bodies)</b>	+	-	+	+-	+-	+	+-	+-
<b>h) combination of instruments</b>	+	+	?	+	+	+	+	+
<b>Overall assessment</b>	+	- (1)	-	+-	+	+	- (1)	+

In the group of Cooperation Projects (2 projects), both of them on a voluntary basis like the above project, one project is assessed as in less accordance and one as in good accordance. In both cooperation projects the individual principles are predominantly assessed as in good accordance or partly in accordance. The overall result of less accordance for the Island and Hallig Conference is not clearly comprehensible based on the statements regarding accordance with the individual principles. The negative evaluation seems to be primarily the result of the minor importance of the aspect of "sustainability" in the work of the cooperation.

*Conclusion 4: Orientation to the ICZM principles can contribute to project success also and in particular in the case of projects that are implemented on a voluntary basis.*

### 3.2 Analysis according to ICZM principles

Consideration given to principle a (**broad overall perspective**) is assessed in the analyzed cases predominantly as good (4) or at least partly in accordance (3). Consideration is assessed as less in accordance only with respect to management of mussel fishery in the Netherlands. Consideration of this principle is currently still made difficult to some extent by sectoral specialized planning and territorial boundaries (e.g. land – coastal waters – EEZ), but thanks to the present development of spatial planning also at sea and the implementation of EU directives like the WFD and the Habitat Directive, it is given increasing consideration. In the concrete project, however, it often remains controversial how broad the perspective has to be in each case.

Consideration given to principle b (**long-term perspective; precautionary principle**) is assessed in the analyzed cases predominantly as good (4) or at least partly in accordance (3). Consideration is assessed as less in accordance only with respect to management of mussel fishery in the Netherlands. Consideration of this principle is boosted at various levels primarily by virtue of implementation of the development goal "sustainable development". In our view, however, the long-term prospects are still examined too often with a sectoral perspective. In addition, consideration of climate change in current planning must be further improved. Consideration of the precautionary principle, as difficult as it may be in specific cases, is aimed at strengthening the ecological aspect of sustainability. Frequently this is still not adequately taken into account in the discussion of ICZM.

Consideration given to principle c (**adaptive management**) is assessed in the analyzed cases predominantly as good (4) or at least partly in accordance (3). Consideration is assessed as less in accordance only with respect to the Jade-Weser-Port project in Germany. Consideration of this principle, which is characterized by the aspects "gradual process" and "sound scientific basis", is particularly supported by the complex, phased planning processes already developed in the Netherlands, Germany and Denmark.

Consideration given to principle d (**local specificity**) is assessed throughout in the analyzed cases as good (8). Consideration of this principle, which is primarily intended to make sure that special local features are adequately taken into account, is ensured in particular by virtue of the significantly increased involvement of the public in the implementation of EU directives.

Consideration given to principle e (**natural processes; carrying capacity**) is assessed nearly throughout in the analyzed cases as good (7). Consideration is assessed as less in accordance only with respect to the Island and Hallig Conference. This principle and especially the second aspect of this principle indicate most clearly that the EU not only wants to boost implementation of the development goal "sustainable development" with ICZM, but also aims at strengthening the ecological aspect of sustainability. Increased consideration is given to this principle particularly through the current development of spatial planning also at sea and the implementation of EU directives like the WFD and the Habitat Directive. However, the positive assessment in the 7

analyzed cases is surprising to some degree, is certainly not generally shared and can be generalized only to a limited extent.

Consideration given to principle f (**all partners involved**) is assessed throughout in the analyzed cases as good (5) or at least as partly in accordance (3). This principle is aimed at extensive participation as a "classic" component of ICZM. Consideration of this principle represents a central policy goal of the EU and consequently commitment to extensive participation is already clearly taken into account in the various EU directives of relevance here, such as the WFD, the Flood Directive and the Habitat Directive. However, approaches encompassing participation prior to formal approval procedures are still less established.

Consideration given to principle g (**improved coordination**) is assessed in the analyzed cases as good (3) or at least partly in accordance (4). Consideration is assessed as less in accordance only with respect to the Ems barrage project in Germany. Consideration of this principle, which is essential for good governance, even independently of ICZM, represents a special challenge for policy in the coastal region due to the boundaries land/sea and coastal sea/EEZ. However, this is found in the analyses of the cases only to a limited extent since they scarcely contain projects whose scope of analysis extends beyond one or both boundaries.

Consideration given to principle h (**combination of instruments**) is assessed in the analyzed cases predominantly as good (7) while the WSF (2008) is unclear with regard to the JadeWeserPort project. This principle is primarily aimed at a broad and flexible methodological tool to be available or applied in order to achieve the other principles. Besides the various established administration procedures, the ICZM discussion focuses here for the most part on additional voluntary mediation procedures, a better knowledge base and tools that combine both.

The analysis shows, that, as already stated in SCHUCHARDT ET AL. (2004) and RWS/RIKZ (2005), the eight principles of integrated coastal zone management suffer from the same problem: they proved to be too abstract to be really useful in assessing existing projects. Even so, it is certainly useful to have an explicit discussion of the principles, especially at the start of a project. Doing so will help those involved to make more conscious choices as regards both content and process.

*Conclusion 5: According to WSF (2008), the assessment of the 8 principles in the analyzed cases shows very predominantly good accordance or at least consideration that is partly in accordance. None of the principles is assessed here as noticeably worse than the others. However, the broad scope for interpretation in the assessment (see conclusion 1) is also evident in the analysis of the individual principles.*

*Conclusion 6: The analysis of planning practice shows in a synopsis that the set of planning tools established in the trilateral coastal region meets in part the ICZM demands. However, the analysis and additional reviewed literature also revealed substantial deficiencies. Therefore, implementation of ICZM in the countries is not possible without a number of adaptations and extensions of the existing planning tools.*

### 3.3 Remarks from a Wadden Sea region perspective

The Wadden Sea Forum has developed the strategy "Breaking the Ice" (WSF 2005), including a Common Vision and a Wadden Sea Region Integrated Coastal Zone Management Strategy. The study (WSF 2008) did not include an analysis of the conformity of the projects with these ICZM elements. An in-depth analysis is not possible within the framework of the present study, but a few remarks should be made in this connection.

The following elements are part of the strategy:

#### **(1) Integration and implementation of sectoral strategies**

Though in the ICZM strategy this element is primarily aimed at the sectoral strategies that are developed in the framework of the WSF process, it applies equally to other strategies and management plans in the Wadden Sea. It is striking with regard to the analyzed projects that the latter are still developed extensively at the national level with only slight transboundary coordination. There is a significant need for action here.

Integration of sectoral strategies and developments (e.g. wind farms) essentially takes place via spatial planning, but here, too, transboundary management has to be improved. This also applies to the boundaries between the coastal sea and the EEZ, but also between the German federal states, for example.

#### **(2) Integration of policies for the Wadden Sea and the adjacent mainland**

There are many interactions between the Wadden Sea and the adjacent mainland that are not always adequately taken into account. A sustainable development strategy for the Wadden Sea region must integrate policies for the Wadden Sea proper and the adjacent mainland. In principle, this applies equally to the EEZ bordering the Wadden Sea.

#### **(3) Cooperation between responsible authorities**

Although, as the analysis of the projects has shown, cooperation between various authorities is often relatively good at the project level, there is still insufficient or lacking cooperation between local, regional, national and EU authorities in the preparation, implementation, enforcement and coordination of rules and regulations in the Wadden Sea region. This becomes evident, for instance, in the coordination of the goals and implementation of the WFD and Habitat Directive. A further improvement of cooperation between responsible authorities is necessary from a Wadden Sea region perspective.

#### **(4) Harmonization and simplification of rules and regulations**

There are some differences in the implementation of rules and regulations in the Wadden Sea region (e.g. with regard to the EU EIA Directive). This is hardly indicated by the analysis of the individual projects. Improved coordination in the implementation of the directives is necessary, both between the countries and between the specific directives.

## **(5) Involvement of stakeholders in sustainable management of the area**

The analysis of the projects showed that, supported by various EU directives, public participation in management already exists on many levels. One of the central aims of the Wadden Sea Forum, however, is to further enhance bottom-up processes wherever possible and as far as compatible with the principles of parliamentary democracy. In our view this can be initiated and fostered particularly within the framework of best practice projects.

*Conclusion 7: Although on a project basis the analysis has indicated partial to extensive conformity of implementation with the ICZM principles, we feel there is a substantial need for better implementation of the ICZM principles from a trilateral perspective.*

### **3.4 Results of the RETRO project**

The objective of the interdisciplinary RETRO project supported by the German Federal Ministry for Education and Research (BMBF) was to analyze current practice in planning procedures in terms of their ICZM compatibility by means of a retrospective analysis of 10 large-scale project approval and planning procedures in the German coastal zone so as to be able to provide guidelines for the implementation of ICZM in Germany on this basis (SCHUCHARDT et al. 2004). Since the requirements for "good ICZM practice" have not been adequately specified to date, 17 criteria for "good ICZM practice" using, in particular, the existing EU ICZM papers as the basis, have been developed. The focus was on the procedural aspects of negotiation and integration as well as the material aspects of a relative strengthening of ecological sustainability. The criteria have been operationalized through formulation of 55 assessable indicators for "good ICZM practice".

The analysis of planning practice and of the underlying legal tools, which was conducted with an eye to "ICZM compatibility" on the basis of the indicators, showed in a synopsis that the set of planning tools established in the German coastal region meets in part the ICZM demands for negotiation, integration and appropriate consideration of the ecological aspects of sustainability. In view of this background the authors recommended the implementation of ICZM in Germany to cry out on the basis of the existing legal planning framework.

However, the analysis also revealed substantial deficits. Therefore, for further implementation of ICZM in Germany the authors recommended a number of adaptations and extensions of the planning tools, which are designated as recommendations for action. In addition to the required broadening of the opportunities for participation, the recommendations focus especially on significant strengthening and extension of regional planning in general and of the regional planning procedure in particular. A number of recommendations, such as that for relative reinforcement of the ecological aspect of sustainability and for improvement of territorial integration, also refer beyond planning processes to more fundamental aspects of the governmental and political decision-making system.

## 4. Results and ICZM prospects

### 4.1 Implementation of ICZM in DK, D, NL

In its recommendation the Council and EU Parliament recommend that the Member States carry out a national stocktaking of management of the coastal zone and based on this assessment to develop an appropriate national strategy to counteract possible weaknesses and gaps in coastal zone management. The Commission officially received reports on implementation of the ICZM Recommendation of 2002 from several coastal Member States in 2006 (<http://ec.europa.eu/environment/iczm/home.htm>). These documents have been analyzed by RUPPRECHT CONSULT (2006) on behalf of the Commission.

In the 24 EU coastal Member States and Accession Countries the status of policy implementation is as follows: (emphasis by Bioconsult)

- No country has implemented an ICZM National Strategy as prompted by the EU ICZM Recommendation.
- In seven countries, namely Finland, **Germany**, Malta, Portugal, Spain, Romania and the United Kingdom, implementation of an ICZM National Strategy is pending.
- In six further countries, i.e. Belgium, Cyprus, France, Greece, **the Netherlands** and Slovenia, documents considered as equivalent to an ICZM National Strategy have been developed, or coastal zone management strategies have become (or are planned to become) an integral part of its spatial planning processes.
- In eleven countries, namely Bulgaria, Croatia, **Denmark**, Estonia, Ireland, Italy, Latvia, Lithuania, Poland, Sweden and Turkey, no ICZM equivalent policies are in advanced stages of preparation, only fragmented tools are in place to address coastal issues.

The result shows that different strategies are pursued in the Netherlands, Germany and Denmark with respect to ICZM in spite of the close Wadden Sea cooperation.

For the 3 Wadden Sea countries the situation is as follows:

#### **Denmark**

A brief ICZM Status Report was submitted in 2006 (MINISTRY OF ENVIRONMENT 2006). No comprehensive Danish ICZM National Strategy, following the EU ICZM Recommendation, has yet been formulated. Some initial steps were taken up to 2003, when it was decided to effect a major structural reform of the Danish municipal system. A number of initiatives were developed to promote ICZM.

The Danish government perceives the Danish planning system in general as adequate to manage the challenges to secure a proper balance between conservation and development of the coastal

zone. Weaknesses and gaps are dealt with currently by adjusting existing laws, regulations and practices as well as implementing EU directives and policies. In 2003 the Danish government decided to implement a major reform of the regional and local government structure. After this decision the Ministry of Environment decided that it would be more appropriate to postpone a debate on a possible national strategy on ICZM until after 2007 when the reform was to be implemented.

## **Germany**

A national report for ICZM in Germany was submitted to the European Commission as an assessment and steps were taken towards a National ICZM Strategy for Germany (BMU 2006). The report defines the strategy as an informal and thus voluntary approach supporting sustainable development of the coastal areas. ICZM is not regarded as a statutory instrument for formal planning and decision-making procedures. The report states that the current legislative framework in Germany is capable of meeting most of the ICZM principles, though further legislative adaptation and optimization of governance instruments are encouraged by the national strategy. Currently a coordination office is under development.

## **The Netherlands**

The Netherlands submitted a progress report on the implementation of the ICZM Recommendation in the Netherlands to the European Commission, with the main purpose of showing the extent to which the Dutch coastal zone is being managed in an integrated and sustainable manner (RWS(RIKZ 2006). The Netherlands has decided not to develop a separate strategy for ICZM but to make use of two existing building blocks which in fact are supported by a variety of complementary statutory institutions: the National Spatial Strategy and the Third Policy Document on Coastal Areas, which provides an integrated framework for coastal zone management and policies on coastal areas.

The analyses conducted in connection with preparation of the national reports have shown, like the present analysis of the 8 cases, that ICZM had been initiated - although not always explicitly mentioned as such - even before national strategies were developed. Thus the Netherlands and in part Denmark, too, have concluded that a specific ICZM strategy is not absolutely imperative in the country to implement ICZM principles as long as the notion of sustainable development forms the basis for setting up governance and participation. However, the analysis also clearly indicated that significant deficiencies still exist in terms of implementation of the principles. Thus, more extensive implementation of the principles is necessary, though further discussion is required to determine the framework in which it can be carried out most successfully.

*Conclusion 8: Formal implementation of the ICZM principles at the national level is not absolutely imperative. Appropriate development of the set of planning tools already established in the trilateral coastal region may also be possible. However, implementation of ICZM in the countries is not possible without a number of adaptations and extensions of the existing planning tools and broad political support.*

## 4.2 EU principles

### **What should the function be?**

As already mentioned above (section 2.1.), the eight principles should mainly ensure good coastal zone management in forming the framework for the formulation of national strategies and measures (EU 2002). This means the 8 principles should be characterized by good coastal zone management as an orientation for the Member States. The analysis of the 8 principles provides evidence that the procedural aspect of ICZM is the focus of the EU perspective while there is hardly any mention of specific material demands or only a very weak formulation (SCHUCHARDT et al. 2004).

### **What was and is the function?**

In fact, the Member States have essentially taken the 8 principles as the basis for their formulation of the national strategies or reports submitted in 2006. Thus, the principles have met their function as an orientation framework for the Member States. However, the comparative analysis of the national reports submitted in 2006 (RUPPRECHT CONSULT 2006) shows that the principles have been interpreted very differently by the Member States. This was possible without any problem due to the very open formulation.

MCKENNA et al. (2008a, b) criticize the inconsistency of the principles, thus making them hardly of any help for use in planning at the local level.

Since the publication in 2002 the principles have been also become a standard against which progress in ICZM is measured (ETCTE 2005; RUPPRECHT CONSULT 2006; WSF 2008). In addition, the principles form the basis for two indicator systems (progress and sustainability indicators; see below).

### **What could the function be?**

The principles perform their function as a comprehensive characterization of good coastal management and should retain it in future in our view. The open formulations chosen in the recommendations (EU 2002) do permit a broad scope of interpretation (see above) and can be criticized with respect to a number of details and their consistency (BMU 2006). On the basis of experience in the UK, however, MCKENNA et al. (2008a, b) state that there remains an urgent need to promote integration of the principles and explicit prioritization of the strategic principles. According to the authors, this can only be achieved through a legally binding instrument, a directive.

In our view the 8 principles are fundamentally suitable to characterize good coastal management and thus to serve as an orientation framework both for local planning and policy development in spite of the existing inconsistencies. They are essentially appropriate in their current form as a recommendation.

Only when the Commission issues a directive, will it be necessary to ensure greater specificity and consistencies according to the suggestions of MCKENNA (2008a,b), among others. Extending the principles to include specific sustainability goals might then be meaningful.

*Conclusion 9: In spite of the existing inconsistencies, the 8 principles are fundamentally suitable to characterize good coastal management and thus to serve as an orientation framework both for local planning and policy development.*

However, application of the 8 principles as a concrete yardstick for implementation of ICZM is, as shown by the above analysis, possible only to a limited extent. This is also the result of analyses in the Netherlands (quoted in RWS/RIKZ 2006) and in Germany (SCHUCHARDT ET AL. 2004; DASCHKEIT 2005). The formulations are too open and consequently the scope for interpretation on the part of the author is too great to permit reproducible evaluations. However, the principles enable a structured analysis and an assessment of the implementation of ICZM.

### 4.3 EU indicators

Since the principles can be used as indicators for the implementation of ICZM only to a restricted degree due to the low degree of specificity, the EU Working Group on Indicators and Data (WG-ID) has developed two sets of indicators: a set of progress indicators to measure progress in the implementation of ICZM and a set of sustainability indicators (WG-ID 2004). The history is described in PICKAVER et al. (2004). An in-depth examination of the sustainability indicators took place at the European level within the framework of the DEDUCE projects ([www.deduce.eu](http://www.deduce.eu)), among others. The progress indicators were tested in the Coastman project ([www.coastman.de](http://www.coastman.de)). This indicated the difficulties in connection with operationalization of sustainability and with the progress of implementation of ICZM. Thus, the difficulties at the level of the specific indicators are basically similar to those at the level of the principles.

In our view the reason for this is, in addition to the fundamental difficulty of operationalization of the complex ICZM processes, the attempt to specify the ecological component of sustainability, which is formulated only very generally in the principles and recommendation, via the sustainability indicators. Among other things, the national reports from the Netherlands, Germany and Denmark take a critical look at the applicability of the indicators as a result of these problems. We feel that a critical analysis of the previous procedure regarding the indicators is necessary here.

*Conclusion 10: The usefulness of the progress and sustainability indicators developed by WG-ID should be subjected to a critical analysis.*

### 4.4 Best practice projects

In the implementation of ICZM both the EU recommendations and the national strategies clearly focus on so-called ICZM best practice projects. A number of such multinational projects have been carried out in the past years, particularly in the framework of the Interreg support programmes (among others, the establishment of the Wadden Sea Forum). However, support funds were available in some cases at the national level, too. Because of their extensively voluntary nature,

these funds enable open communication and, by virtue of their support, they permit the development of methods. This is valuable experience for implementation of ICZM and should be continued.

However, this can only be part of the implementation of ICZM. Parallel to such activities, work is necessary to ensure that the ICZM principles are increasingly implemented in daily practice, too, whether in large-scale infrastructure projects or in the preparation of management plans in which specific interests of the actors are concerned. On the other hand, the principles must continue to serve as a guideline for policy development and its specific implementation in laws and regulations.

*Conclusion 11: Best practice projects perform an important function in the implementation of ICZM; however, this must only be part of the process.*

## 4.5 Spatial planning

The analysis showed that part of the principles has already been met even without explicit reference to ICZM in planning practice. One reason is the spatial planning already existing in the coastal zone at the national level. Spatial planning at the national level is partly established and partly still developing as a tool, especially with respect to the Exclusive Economic Zone (EEZ). At the EU level the Communication concerning a "Roadmap for Maritime Spatial Planning: Achieving common principles in the EU" was adopted very recently (November 2008) by the Commission. It provides information on current maritime spatial planning practices in EU Member States and in third countries, outlines the instruments which impact on it and sets out key principles underpinning it. The Communication seeks to encourage a broad debate on how a common approach to maritime spatial planning can be achieved in the EU.

As shown by the discussions during development of the national strategies, spatial planning and ICZM overlap substantially in terms of their approach and goals. In view of the current national activities in the field of marine spatial planning as well as against the background of the current Communication of the EU regarding marine spatial planning, it appears urgently necessary to define the tasks and functions more clearly in relation to each other.

From our perspective spatial planning should be one of the legally binding instruments for implementing the ICZM principles. Thus, strengthening spatial planning and better implementation especially of transboundary aspects is seen as an important step for further implementation of ICZM.

*Conclusion 12: Spatial planning should be seen as one of the legally binding instruments for implementing the ICZM principles. Thus, strengthening spatial planning and better implementation especially of transboundary aspects is an important step for further implementation of ICZM.*

## 4.6 EU directives

In the past years the EU has adopted a number of directives (including Habitat Directive, Water Framework Directive, Flood Directive, Marine Strategy Directive) that support the aim of ICZM. This

applies in particular to the aspect of participation (principle of involvement of all partners) and consideration of environmental concerns (precautionary and carrying capacity principles) as well as to the principle of long-term prospects, among other things. The predominantly completed implementation of the principles in national law as well as their application have made a major contribution to making the ICZM principles a fundamental part of practice in Denmark, Germany and the Netherlands today (and will continue to do so), even without ICZM being legally established as a separated planning tool (SCHUCHARDT ET AL. 2004; RUPPRECHT CONSULT 2006; WSF 2008).

*Conclusion 13: Implementation of the various EU directives in national law has made and will continue to make a contribution to ensuring that the ICZM principles are increasingly taken into account in planning practice on a gradual basis.*

#### **4.7 Major gaps and risks**

Although major aspects of ICZM in the Wadden Sea region have already become practice, further significant improvements are necessary (SCHUCHARDT et al. 2004; WSF 2005, EU 2007, and above):

- improvement of territorial integration (including onshore and offshore areas);
- better coordination between authorities;
- better participation especially in early project stages;
- lack of formal ecological quality objectives;
- better transboundary management.

#### **4.8 General outlook**

A key question concerning the prospects of ICZM is whether the latter remains a voluntary, non-statutory instrument and should be further developed as such or whether embodiment in law via an ICZM directive is meaningful, as is currently demanded, for example, by MCKENNA (2008a, b). We recommend that ICZM be further developed as a voluntary instrument focusing on procedural aspects because this is the only way to exploit the specific opportunities and reduce redundancies, primarily with spatial planning. However, especially as a voluntary approach ICZM needs high-level political support. To obtain such support, it may be useful in the medium term to adopt an ICZM directive. The 8 principles already focus intensively on the procedural component although the EU recommendation also aims at strengthening the ecological aspect of sustainability and thus at a material component (SCHUCHARDT et al. 2004). The improved implementation of the ecological component of sustainability intended in the recommendation should primarily take place via appropriate implementation of the various existing EU directives.

*Conclusion 14: We recommend that ICZM be further developed as a voluntary instrument focusing on procedural aspects. However, especially as a voluntary approach ICZM needs high-level political support. To obtain such support, it may be useful in the medium term to adopt an ICZM directive.*

*Conclusion 15: The improved implementation of the ecological component of sustainability intended in the recommendation should primarily take place via appropriate implementation of the various existing EU directives.*

## 5. Overall conclusions and recommendations

The objective of the WSF project on ICZM was to analyze current practice in planning procedures in terms of their ICZM compatibility by means of a retrospective analysis of 8 cases in the coastal zones of NL, D and DK. This has been done using the 8 ICZM principles outlined in the EU ICZM Recommendations as a yardstick. At the same time it became evident that the 8 principles are fundamentally suitable to characterize good coastal management and thus to serve as an orientation framework for both local planning and policy development. Because of the open formulations in the 8 principles, however, reproducible evaluations of the implementation of ICZM are possible only to a limited extent. The scope for interpretation on the part of the authors is large. Nevertheless, the analysis enables an assessment of the situation.

The analysis of planning practice shows in a synopsis that the set of planning tools established in the trilateral coastal region meets in part the ICZM demands for negotiation, integration and appropriate consideration of the ecological aspects of sustainability. In view of this background, implementation of ICZM in the three countries should, in our view, be carried out on the basis of the existing legal planning framework. However, the analysis from a trilateral perspective and additional reviewed literature also revealed substantial deficiencies. Therefore, implementation of ICZM in the countries is not possible without a number of adaptations and extensions of the existing planning tools. Some of these necessary adaptations can be carried out through appropriate implementation of the various EU directives.

The central objectives of ICZM are currently rising in importance in view of the increased economic use of the coast. Because of the differentiated set of legal instruments in the cooperation area, ICZM can be developed and implemented meaningfully in our view only as an overriding demand and as a voluntary, cooperative approach. *However, especially as a voluntary approach ICZM needs high-level political support. To obtain such support, it may be useful in the medium term to adopt an ICZM directive.*

Recommendations:

- *further optimization of the set of legal instruments according to the basic ICZM principles; e.g. strengthening of spatial planning nationally and trilaterally and better participation especially in early project stages*
- *coordinated implementation of EU directives for strengthening the ecological aspect of sustainable development. With respect to this a further strengthening of trilateral cooperation for coordinated development of HD, WFD Marine strategy is necessary.*
- *improvement of territorial and transboundary integration and management (including on- and offshore areas);*
- *best-practice projects and their evaluation and communication.*
- *development of trilateral management plans (e.g. mussel fishery)*

- *establishment of national ICZM secretariats with high-level political support;*

It must be examined carefully whether development of the CWSS into a trilateral ICZM Secretariat is meaningful. On the one hand, it already performs part of this function and would be very suitable; on the other hand, shifting the primary objective of the CWSS or trilateral Wadden Sea cooperation from nature protection to integrated management would presumably weaken the ecological component of sustainable development.

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