

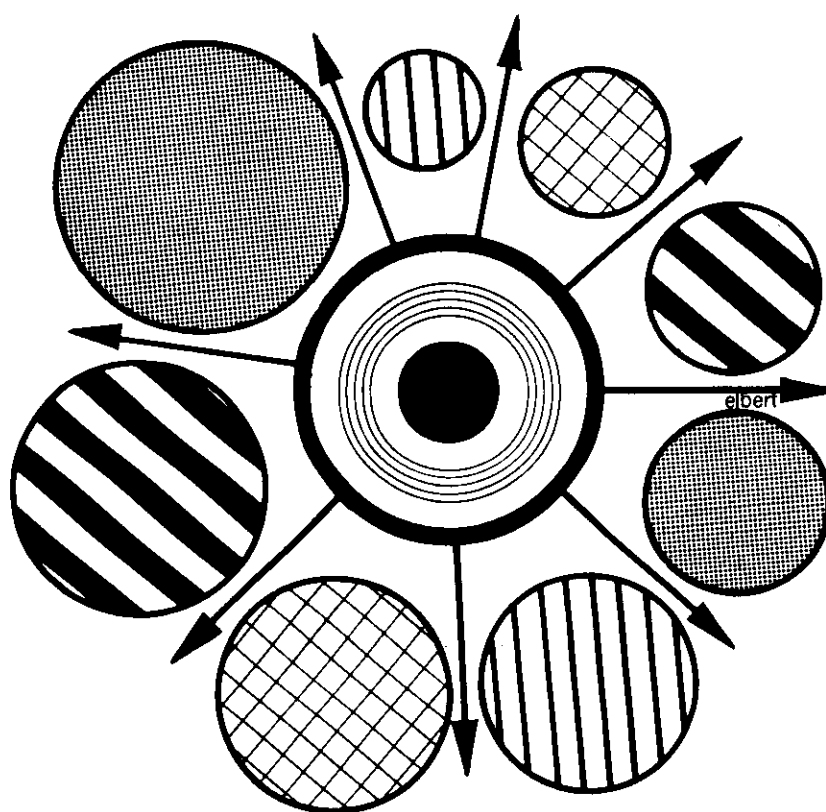
COUNCIL
OF EUROPE



CONSEIL
DE L'EUROPE

EUROPEAN REGIONAL PLANNING
STUDY SERIES

48



THE DEVELOPMENT AND PLANNING
OF COASTAL REGIONS

Report of the European seminar
Cuxhaven, 7-9 May 1985

STRASBOURG
1986

EUROPEAN REGIONAL PLANNING

Study series

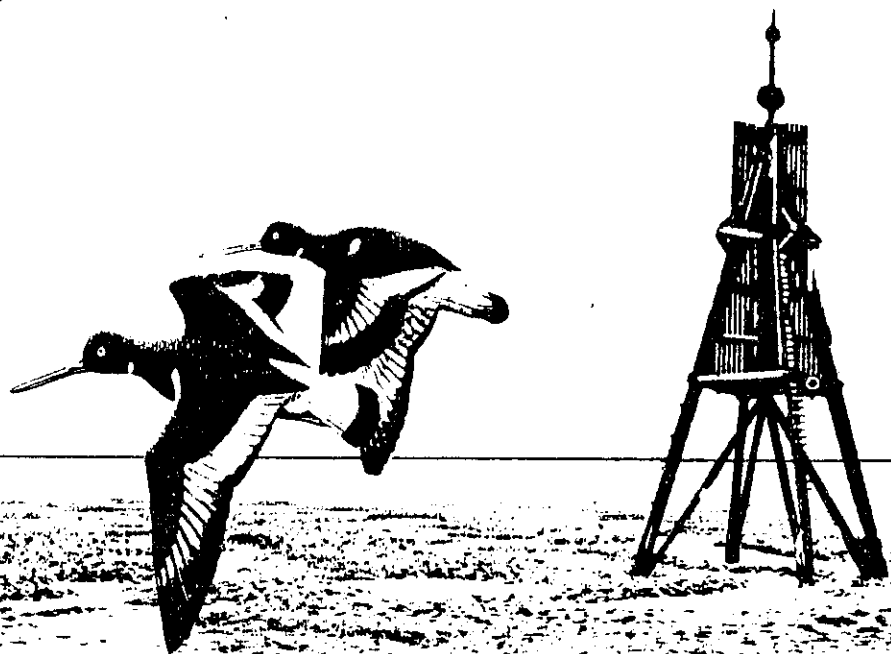
Study n° 48

European Seminar
"THE DEVELOPMENT AND PLANNING
OF COASTAL REGIONS"

Cuxhaven (Federal Republic of Germany)

7-9 May 1985

REPORT OF THE SEMINAR



FOREWORD

"Maritime and coastal regions in Europe constitute a common cultural and natural heritage. Their development and protection should be achieved through international solidarity and an awareness of shared problems".

This was one of the main conclusions of the 6th European Conference of Ministers responsible for Regional Planning (Torremolinos, 19-20 May 1983) on the theme "Development and planning prospects in European maritime Regions".

It was decided on that occasion to organise a series of specialised seminars for an on-the-spot study of the problems of the most characteristic coasts of Europe.

The first of these seminars, on the subject of the Wadden Sea, was held in Cuxhaven in the Federal Republic of Germany from 7 to 9 May 1985, on the initiative of Dr. Egbert Mücklinghoff, Minister of the Interior of Lower Saxony, with the approval of Dr. Oscar Schneider, Federal Minister for Regional Planning.

It was organised by the Steering Committee for Regional Planning of the Council of Europe and by the Committee of Senior Officials of the European Conference of Ministers responsible for Regional Planning, with the support of the Commission of the European Communities.

The seminar was chaired by Professor Buchholz, Director of the Geography Institute of the University of Hanover (FRG) and was attended by some 60 experts, scientists and representatives of administrations specialising in coastal planning and nature conservation (1).

The Minister of the Interior of Lower Saxony, Dr. Mücklinghoff, was represented by the State Secretary, Dr. Heidemann, the Parliamentary Assembly of the Council of Europe by Mr John Corrie and the Commission of the European Communities by Dr. Gunter Schneider.

The work of the seminar was reported at length in the local and regional press and radio and on French television.

The seminar's themes were well illustrated with a map exhibition, to which several countries contributed, a plentiful use of audio-visual material and a study visit to the bird sanctuary on the island of Neuwerk. Apart from different aspects of the protection and development of the Wadden Sea, the themes of the seminar covered the coastlines of Northern Europe, the Atlantic and the Mediterranean Basin, the underlying leitmotiv being the role of international co-operation in safeguarding a European national heritage.

The report of the seminar gives a chronological summary of the proceedings, followed by an analytical appraisal of the major issues discussed at the seminar and the solutions proposed.

Evelyne Denny
Consultant

(1) The list of participants appears in Appendix I.

CONTENTS

PART I: SUMMARY OF PROCEEDINGS

PROGRAMME

		Page
<u>Monday 6 May 1985</u>		
Approximately 8 pm	Arrivals Cocktails Opportunity to collect general information on the problems of North Sea coastal regions	
<u>Tuesday 7 May 1985</u>		
9 am - 12 pm	Introduction	
9 am	<u>OPENING OF THE SEMINAR</u>	1
	Addresses by:	
	- a representative of the Federal Ministry of Regional Planning, Building and Urban Development, Bonn	
	- a representative of the Minister for the Interior of Lower Saxony, Hanover	
	- a representative of the municipality of Cuxhaven	
	- a representative of the Council of Europe	
	- the Chairman of the Committee of Senior Officials	
10 am	<u>CAN EUROPE'S COASTS STILL BE SAVED?</u>	5
	1. The possibility and need to protect coastal regions in general with special attention to the Wadden Sea	
	Rapporteur: Mrs S LANGEDIJK-DE JONG - Former Secretary of State, Chairman of the Maritime Wadden Sea Council	
11 am	<u>CONCLUSIONS OF SPECIALIST CONFERENCES SINCE THE 6TH CEMAT (Torremolinos 19-20 May 1983)</u>	6
	2. Analysis and evaluation of the conclusions with a view to CEMAT's future work (European Ministerial Conference on the Environment, Athens, 1984, International Conference on the North Sea, Bremen, 1984, Conference of Island Regions, Azores, 1984 etc).	
	Rapporteur: Mr Eckhard POLLAK - Niedersächsischer Minister des Innern - Hanover.	
	- Discussion	
12.30 pm - 2 pm	Lunch	

2 pm - 5 pm

PLANNING AND DEVELOPMENT OF EUROPEAN
COASTAL REGIONS

Page

I. THE MEDITERRANEAN BASIN

7

3. Summary report on important developments on
Europe's Mediterranean coasts

7

Rapporteur: Mr Franco FIORELLI - Professor
of economic geography at the University of
Bari

Cyprus contribution: "Development and planning
of the southern coast between and including the
towns of Larnaca and Limassol, Cyprus".

Rapporteur: Mr Georges J PHEDONOS, Ministry
of the Interior, Nicosia.

- Discussion

II. NORTHERN EUROPEAN AND ATLANTIC COASTS

9

4. The Baltic Sea

9

Initiatives taken for the protection of the
Baltic Sea coasts

Rapporteur: Mr Kjell GRIP - Swedish Marine
Resource Commission - Göteborg.

- Discussion

5. The Bay of Cadiz

10

Study concerning regional planning and co-ordination
of local management in a strongly urbanised
region.

Rapporteur: Mr Florencio ZOIDO - Director
General of Town Planning - Department for
Territorial Planning - Junta de Andalucía

- Discussion

6 pm

Reception

<u>Wednesday 8 May 1985</u>		Page
9 am - 12.30 pm	<u>The Wadden Sea</u> Example of a particularly endangered section of European coasts.	10
	6. <u>The Wadden Sea, its importance, the dangers facing it and the need for protection</u> Rapporteur: Mr Holger WESEMÜLLER - WWF Environment Foundation <u>National protection and development measures</u>	10
	7. <u>Federal Republic of Germany: integrated concepts for the protection of the Wadden Sea</u> Rapporteur: Mr Diedrich LÜDERWALDT - Nieders. Landesverwaltungsamt	11
	8. <u>Netherlands: Document on Dutch policies concerning the management of the Wadden Sea</u> Rapporteur: Mr Machiel IN'T ANKER - National Physical Planning Agency - The Hague	11
	9. <u>Denmark: The Danish Wadden Sea - development problems and protection</u> Rapporteur: Mr Sven TOUGAARD - Fishery Museum - Esbjerg	12
	10. <u>United Kingdom: Environmental protection of the East Anglia Coast</u> Rapporteur: Mr Christopher BLAGDEN - Department of the Environment - Directorate of Rural Affairs - Bristol	13
12.30 pm - 2.30 pm	- Lunch	
2.30 pm - 5.30 pm	<u>General discussion</u> with the rapporteurs' participation Analysis of results and conclusions <u>General Rapporteur:</u> Prof. Hans J BUCHHOLZ - Institute for Geography of the Hanover University	14
6 pm	Closing session (conclusions and summary)	
7 pm	Press conference	
<u>Thursday 9 May 1985</u>	Whole-day excursion in the Wadden Sea (free of charge) <u>CONCLUSIONS ADOPTED IN CUXHAVEN</u>	15

<u>PART II: THEMATIC REPORT OF THE CUXHAVEN SEMINAR</u>	20
Chapter I: Europe's coastline: a rich and desirable, but limited, fragile and beleaguered area	20
Introduction	
1. The special case of the Wadden Sea	21
1.1 The Wadden Sea: an area of European importance	21
1.1.1 Position and structure	21
1.1.2 Role and importance of the Wadden Sea	22
1.2 Threats to the Wadden Sea	23
2. Similarities between the Wadden Sea and the coast of East Anglia	23
3. Evolution of the Mediterranean coastline	24
Chapter II: Concepts and forms of protection of coastal regions	26
1. The Netherlands approach	26
2. The coastal protection system in Britain	28
2.1 Instruments of protection	28
2.2 Coastal inventory and planning in England and Wales	29
3. Protection or restoration of a degraded area: the Venice Lagoon restoration park	30
4. Protection of the Wadden Sea in Denmark	31
5. Lower Saxony Wadden Sea National Park Project	32
6. Schleswig-Holstein National Park Project	33
Chapter III: Shortcomings of existing conservation systems and elements for the integrated planning of coastal regions	34
1. Shortcomings of existing protection systems	34
2. Are environmental conservation and coastal development incompatible objectives?	35
2.1 Case-study: Dollart harbour	35
2.2 Relationship between the environment and economic development	36
3. Integrated strategy and coastal planning authorities	37
Chapter IV: International co-operation in the field of coastal protection and planning	38
1. Main stages of international co-operation alongside the 6th CEMAT	38
1.1 Baltic Sea Convention	38
1.2 European Coastal Charter	40
1.3 6th European Conference of Ministers responsible for Regional Planning	40
1.4 4th European Ministerial Conference on the Environment	40
1.5 International Conference for the Protection of the North Sea	40
1.6 Joint Declaration on the Protection of the Wadden Sea	41
2. Critical appraisal of the results of international co-operation	41
2.1 Point of view of the European Community	41
2.2 Towards the creation of a Wadden Sea international nature park	42
Conclusion	44
Appendix I: List of participants	45
Appendix II: List of documents	48

PART I: SUMMARY OF PROCEEDINGS

OPENING OF THE SEMINAR

- Address by Mr Günter MUDRICH, representing the Secretary General of the Council of Europe

Mr Mudrich opened the seminar on behalf of the Secretary General of the Council of Europe. He welcomed participants and wished them a pleasant stay and success in their work. He said that the future of coastal regions was one of the main concerns of a great number of organisations dealing with the problem of the conflict between their socio-economic development and the protection of their natural environment.

The Council of Europe had taken a particular interest in these ecologically sensitive regions. In 1984, it had organised the 4th European Conference of Ministers responsible for the Environment in Athens, the main theme of which had been "The planning of coastal areas", and in 1983, the 6th European Conference of Ministers responsible for Regional Planning (CEMAT) in Torremolinos on the theme of "Development and planning prospects in European maritime regions".

Mr Mudrich recalled that the CUXHAVEN seminar had been initiated during the 6th CEMAT with a dual objective:

- to provide an occasion for the exchange of experience and information concerning coastal development policies in the different countries;
- to put forward concrete proposals for the definition of a specific policy for coastal regions.

On Behalf of the Secretary General of the Council of Europe, Mr Mudrich thanked all those who had contributed to the organisation of the seminar.

- Address by Dr. Hans-Heinrich EILERS, Oberstadtdirektor of the town of Cuxhaven

On behalf of the Municipal Council and the administration, Dr. Eilers welcomed participants and wished them a pleasant stay in the seaside health resort of Cuxhaven, which extended its hospitality.

Cuxhaven, the northernmost town in the Land of Lower Saxony, owed its sea-oriented economy, dominated by tourism and fishing, to its position at the tip of the peninsula formed by the estuaries of the Weser and Elbe rivers.

The choice of Cuxhaven as a venue for the seminar was in no small measure due to the fact that the town was a perfect illustration of the specificity of the Wadden Sea and of the range of problems encountered.

The economic crisis was locally acute, particularly in the dominant fisheries sector. Profitable tourist areas bordered on one of the Land's major shipping lanes. An international bird sanctuary co-existed next to one of the largest oil complexes of the Federal Republic of Germany. The great diversity of fauna and flora was threatened by increasing pollution. Exceptional landscapes such as the salt meadows were threatened by industrial schemes designed to alleviate high unemployment.

In the months ahead, the town of Cuxhaven would be working on the project for a new Lower Saxony national park. The town was prepared to offer its facilities and infrastructures to receive the new park administration.

- Address by Dr. Johannes HOPPNER, Kreisdirektor of the Landkreis of Cuxhaven

Dr. Hoppner welcomed participants warmly on behalf of the Landkreis of Cuxhaven and expressed the hope that the seminar would produce some practical planning solutions for the local population and for the coast.

He said that the region between Weser and Elbe was one of the most interesting in the Federal Republic of Germany from the point of view of the development and planning of coastal regions. All the problems faced by man in connection with coasts became crucial there in a natural area which was unique in the world.

In addition to traditional conflicts between industrialisation and conservation, that limited area was affected by a problem directly linked to the federal structure of the Federal Republic, since it came under the authority of three different Länder, Lower Saxony, Bremen and Hamburg, a situation which gave the local people an acute understanding of the difficulty of implementing a European union.

He concluded that, faced with the challenge represented by the long-term protection of the Wadden Sea, the bordering states should be prepared, despite the difficulties involved, to provide concrete evidence of their sincere will to safeguard that irreplaceable ecosystem.

- Address by Dr. Michael SCHULTZ-TRIEGLAFF, representative of the Federal Ministry of Regional Planning, Building and Urban Development

Dr. Michael Schultz-Trieglaff welcomed participants on behalf of Mr Oscar Schneider, Federal Minister for Regional Planning, Building and Urban Development.

He recalled that the seminar had originated at the 6th CEMAT. The implementation of the project had been supported from the start by the Federal Government, which welcomed the emphasis placed on the development of coastal regions in the work programme of the Council of Europe's Steering Committee for Regional Planning.

A series of three seminars had been planned on the theme. The first seminar which was being inaugurated, coincided with the 36th anniversary of the founding of the Council of Europe and for that reason took on a symbolic significance for the Federal Republic of Germany.

The current seminar, which was devoted essentially to the Wadden Sea, was complementary to the various international conferences organised in recent years on coastal regions, such as the International Conference for the Protection of the North Sea held in Bremen in 1984. The latter conference had led to an agreement on limiting pollution in the North Sea and the Federal Republic of Germany attached great importance to the latter's rapid implementation.

By designating priority environmental protection areas, the Federal Government was trying to support the plan of the Länder of Lower Saxony and Schleswig-Holstein to set up national parks in the Wadden Sea areas, while stimulating the regional economy by fostering the activities of small and medium-sized enterprises as well as labour-intensive rather than capital-intensive undertakings.

In conclusion, the speaker said that the countries bordering on the Wadden Sea had a common responsibility to safeguard their national environment and thence their own living conditions, for which aim they should work together.

Address by Mr von HINÜBER, Representative of the Government of Lower Saxony

Mr von Hinüber welcomed participants to Cuxhaven on behalf of Dr. Möcklinghoff, Minister of the Interior for the Land of Lower Saxony, who had provided the decisive impetus for the holding of the seminar of experts in Topremolinos in May 1983.

Mr von Hinüber recalled that owing to the federal structure of the Federal Republic of Germany, many legislative, administrative, management and regional planning responsibilities were entrusted to the Länder. That situation added an extra dimension to the conflicts of interest on the coast, where Lower Saxony Bremen, Hamburg and Schleswig-Holstein were at the same time partners and opponents.

Cuxhaven, a bastion for pirates of the high seas in the Middle Ages, had always been a very disturbed land, and nature itself with its strong tides and constant topographical changes had often been a cause for anxiety and distress throughout the centuries. The major concern at present was to reconcile economic and environmental interests. There were few other places where conflicts between the protection of nature and landscapes, tourism, commerce, shipping and employment were so inextricably linked.

Cuxhaven, which had at one time belonged to the Hanseatic city of Hamburg, had been exchanged for some other areas with the Land of Lower Saxony only in 1937. In 1961, during the period of growth euphoria, the city of Hamburg had asked for two of its former possessions to be returned to it, namely the islands of Neuwerk and Scharnhorn, as well as 9,000 hectares of tidal flats off Cuxhaven to build a major open sea industrial port. The scheme had provisionally been abandoned in favour of a project for a bird sanctuary, although the decision was not considered final.

The Land of Lower Saxony had developed a regional planning policy which took account of diverging interests. After years of discussions and debates in the Landtag (Land Parliament), a development programme had been adopted in 1982. That programme, thanks to which the Wadden Sea had been designated as a priority area for nature conservation, also provided the foundations for the new Lower Saxony National Park. The latter project, which still remained to be implemented on a regional and local level, would constitute a restrictive development framework which could be improved upon later, while for the first time it provided a general plan for the protection of the Wadden Sea.

In conclusion, Mr von Hinüber suggested three lines of thought for the seminar's consideration:

- The protection of the Wadden Sea should not be limited to the protection of the coastal fringe but should extend from the sources of the rivers Rhine, Elbe and Weser as far as the open sea.
- Protection could not rely solely on regulations; it should be taken into account at every decision level both by industrialists in the design of their products and by individuals. Tourism could contribute to the public's awareness of the need to preserve their common heritage and should be given a didactic dimension.
- The protection of the Wadden Sea could not be pursued at the expense of industry, port activities and the construction of shipping lanes, which constituted an asset for coastal towns and provided citizens with food and work.

The Government of Lower Saxony was trying to find an acceptable compromise between those contradictory objectives and hoped that many practical proposals would be produced by the seminar.

- Address by Mr Joris AL, Chairman of the Steering Committee for Regional Planning, Chairman of the Committee of Senior Officials in charge of preparing European Conferences of Ministers responsible for Regional Planning

Mr Al welcomed participants on behalf of the European Ministers responsible for regional planning, whom he represented. He also thanked the Cuxhaven authorities for hosting the seminar.

Mr Al recalled that the most controversial of the resolutions adopted in Torremolinos had been the one concerning the protection of coastal regions, although a consensus had emerged concerning the need to strengthen international co-operation.

While there was no standard solution which could be applied in the search for a compromise between the protection of natural resources and economic development, it seemed clear that any kind of compromise would be subject to two requirements:

- protection had to extend as far into the future as possible;
- the protection system would have to incorporate the complex relations between land and sea.

The Chairman of the Committee of Senior Officials and of the Steering Committee for Regional Planning had had an opportunity to mention the case of the Wadden Sea at the Conference of Regions of the Mediterranean Basin (Marseilles, 27-29 March 1985), and he was pleased to welcome officials responsible for regional planning in the Mediterranean regions to the seminar. It was an illustration of the international context in which the seminar was placed.

CAN EUROPE'S COASTS STILL BE SAVED?

1. The possibility and need to protect coastal regions in general with special attention to the Wadden Sea (CDAT (85) 32)

Rapporteur: Mrs S LANGEDIJK-DE JONG
Former Secretary of State
Chairman of the Maritime Wadden Sea Council

Summary of the report:

For Mrs Langedijk-de Jong, the protection of our environment is vital, particularly in coastal regions which come under considerable pressure from human activities and whose ecological function is vital both for us and for future generations.

There are a number of reasons why the protection of the Wadden Sea deserves special attention:

- its great natural resources;
- its ecological significance for North Sea flora and fauna;
- its role in maintaining North Sea fish stocks;
- the natural beauty of its landscapes;
- its scientific value;
- its function as an indicator of anomalies.

The Rapporteur welcomes the greater awareness at international level of the need to protect the Wadden Sea and the adoption of the Joint Declaration on the Protection of the Wadden Sea, which is the outcome of several years' consultation between Denmark, the Federal Republic of Germany and the Netherlands.

In practice, however, Mrs Langedijk-de Jong regrets that such agreements should lead to no real protection. There are many current projects and developments which are hardly compatible with the environment of the Wadden Sea.

Several conditions need to be fulfilled for any serious approach to protection policy:

- There must be a real desire for protection. The need for it must be recognised in broad circles and for this an open and broad flow of information must be maintained.
- There must be an attempt to co-ordinate protection measures internationally as much as possible. If necessary, individual countries must not hesitate to take their own measures. Waiting for each other is to be avoided.
- Policies should be felt to be logical both by users and by inhabitants.
- The effects of an intervention should be taken into account before any decision is taken to accept a project. Once a particular activity has been admitted, further measures should be considered for the protection of the coastal region.

- There has to be strong cohesion between all sectors whose policies affect the coastal region.
- Policies and regulations directed towards the implementation of those policies have to be both simple and clear, especially in the interests of users and inhabitants.

Summary of discussion:

The discussion, in which MM Schneider, Wesemuller, Spanier and Feldt took part, concerned the progress achieved in international co-operation with the adoption of the Joint Declaration, as well as the limitations of the latter, which merely set up consultation machinery and was open to different interpretations. Such agreements were ineffective in limiting new infrastructure projects, such as those involving the Bay of Leyden or Dollart harbour, which raised the problem of over-capacity in north western Europe.

CONCLUSIONS OF SPECIALISED CONFERENCES SINCE THE 6TH CEMAT
(Torremolinos, 19-20 May 1983) (CDAT (85) 16)

2. Analysis and evaluation of the conclusions with a view to CEMAT's future work (European Ministerial Conference on the Environment, Athens 1984; International Conference on the North Sea, Bremen 1984; Conference of Island Regions, Azores, 1984 etc).

Rapporteur: Mr Eckhard POLLAK
- Niedersächsisches Ministerium des Innern - Hanover

From a study of the conclusions of international texts concerning the protection of coastal regions since International Environment Year in 1970, Mr Pollak is able to classify them into four categories:

Group 1: concerns activities aimed at defining the general principles of coastal policy, which have not gone beyond the recommendation stage;

Group 2: aims at defining more selective policies which can directly influence national policies;

Group 3: includes international agreements for the protection of seas;

Group 4: concerns the protection of regional seas.

The Rapporteur notes that there is little co-ordination between these various instruments, from which no overall image emerges. Although everything has been said, international co-operation for the protection and development of coastal regions is still only in its infancy and there is still a large "deficit" with regard to ratification, implementation of agreements, control machinery and sanctions, or the transcription of international texts in national legislation.

Some substantial results were, nevertheless, achieved in 1971 and 1973 with the adoption of resolutions and recommendations respectively by the Parliamentary Assembly and the Committee of Ministers of the Council of Europe.

The main stages were as follows:

- the work of the European Committee for the Conservation of Nature and Natural Resources (1974);
- the initiatives of the Standing Conference of Local and Regional Authorities of Europe, materialised in the declarations of Galway (1975), Tenerife (1981), and the Azores (1984);
- the drafting of the European Coastal Charter by the Conference of Peripheral Maritime Regions of the European Community, which was unanimously adopted by the European Parliament in 1982;
- the 6th European Conference of Ministers responsible for Regional Planning (Torremolinos 1983);
- the 4th European Ministerial Conference on the Environment (Athens 1984);
- the International Conference for the Protection of the North Sea (Bremen 1984);
- the signature of the Joint Declaration on the Protection of the Wadden Sea by the Federal Republic of Germany, the Netherlands, and Denmark (Copenhagen 1982).

The lesson drawn by Mr Pollak is that, since 1973, there has been a steady demand for an inventory of the coastline. The Rapporteur proposes that in the Cuxhaven conclusions the preparation of such an inventory should appear as the next stage required in European co-operation in the field of coastal protection and development.

Summary of discussion:

The discussion revolved mainly around the follow-up to the Joint Declaration and the problem of priorities in international co-operation. It appeared that whilst the implementation of an ecological inventory and of an inventory of the uses of coastal areas should be given priority, that should not be allowed to conceal the urgent need for effective protection measures, which had already found a scientific justification. The following speakers took part in the discussion, which also considered the possibility of extending the Joint Declaration to the United Kingdom and the European Community: Mrs Langedijk-de Jong, MM Wesemuller, Spanier, Uthoff, Tougaard, In't Anker, Al, Blagden, Schneider and Kormos.

PLANNING AND DEVELOPMENT OF EUROPEAN COASTAL REGIONS

1. THE MEDITERRANEAN BASIN

3. Summary report on important developments on Europe's Mediterranean coasts

Rapporteur: Mr Franco FIORELLI

Professor of Economic Geography at the University of Bari

Mr Fiorelli's report looks at the crisis and new opportunities on the coasts of southern Europe, which have been seriously affected by movements of populations and tourists and which are going through a phase of deindustrialisation and reorientation towards new forms of development.

For Mr Fiorelli, the 1970s and 1980s have been years of major ideas and international agreements. The adventure of the active management of the land-sea relation is beginning. The challenge will be knowing where and how to build and the methodological approach required will depend on the space-time scale used as a starting point.

Contribution by Mr Franco POSOCCO - Regional Secretariat for the Territory - Regional Council of the Venetia Region (Italy), on the theme:

"Considerations concerning the protection of the north Adriatic coastline and in regional development and environmental policies of the Venetia region" (CDAT (85) 17).

The Adriatic Sea, situated in the trough between the folds of the Appenines and the Dinaric Alps is a closed shallow basin in which water is renewed only every five or six years.

This situation explains its vulnerability to pollution, especially from mines, brought in by the Po.

The gradual eutrophication of the last 20 years is now beginning to jeopardise the profitability of fisheries, fish and shellfish farming and seaside resorts, which are the main sources of revenue for the surrounding regions.

De-pollution of the Adriatic has become a national priority for Italy and has given rise to a new form of transfrontier co-operation between the adjacent Italian and Yugoslav regions.

The Venetia region for its part has just decided experimentally to set up a regional park for the restoration of the Venice Lagoon based on a multidisciplinary and inter-sectoral approach.

Contribution by Mr Georges J PHEDONOS, Ministry of the Interior, Nicosia, (Cyprus) on:

"Development and planning of the southern coast between and including the towns of Larnaca and Limassol, Cyprus" (CDAT (85) 18).

Taking the most characteristic coast of Cyprus as a model, Mr Phedonos outlines the pressures exerted on these spaces by competing uses.

It has been difficult fully to implement regional development plans, some of which originated in 1970. Sectoral plans provide for:

- an improvement of infrastructures;
- the concentration of development on certain sites;
- the creation of buffer areas to prevent anarchic construction;
- the establishment of standards for tourist facilities and the improvement of reception infrastructures;
- the preservation of the architectural and cultural heritage;
- the maintenance of agriculture;
- the control of industrial and port pollution.

Cyprus was pleased to take part in the seminar based on the exchange of experience and information concerning the possibilities of reconciling the protection and the development of coastal regions.

Summary of discussion

The discussion, in which MM SPANIER and KORMOSS took part, introduced the notion of "Vorsorgeplanung", a form of forward planning to forecast long-term pressures on land and to plan measures for the creation of protected areas.

II. NORTHERN EUROPEAN AND ATLANTIC COASTS

4. The Baltic Sea (CDAT (85) 19)

Rapporteur: Mr Kjell GRIP
Swedish Marine Resource Commission - Göteborg

In swift response to the recommendation of the United Nations Conference on the Human Environment held in Stockholm in 1972, the seven Baltic Sea states prepared and signed the Convention on the Protection of the Marine Environment of the Baltic Sea area on 22 March 1974.

This agreement is the first of its kind in the world, since it is the first international agreement to cover all sources of pollution.

Mr Grip gives a review of ten years' activities since the convention was signed and analyses the practical results.

As a result of the convention, Sweden has initiated a planning policy for the use of land and water areas, authorising local authorities to manage the use of water areas from the shore to a distance of two nautical miles.

Summary of discussion

For MM SLEIFER, FIORELLI and PHEDONOS, a municipal approach to water use planning would give rise to many problems, particularly from the point of view of arbitrating conflicts of interest between municipalities or between different levels of decision-making.

5. The Bay of Cadiz (Spain). Study concerning regional planning and co-ordination of local management in a strongly urbanised region (CDAT (85) 20).

Rapporteur: Mr Florencio ZOIDO NARANJO
Director General of Town Planning of the Department for Territorial Planning - Junta de Andalucia

The Bay of Cadiz is an area of exceptional beauty whose fragile natural equilibrium is threatened by intensive human use.

In the early 1970s, a major new town was planned on the basis of the five existing municipalities and three urban development plans. Although the town never came to be built, the plans led to the implementation of various residential and industrial schemes without any consultation or co-ordination.

It was only after the change in Spain's political and economic situation that new initiatives emerged in the field of town and country planning.

With the approval of all the municipalities concerned, a general plan for the bay was drawn up in accordance with the guidelines on the "bases for the co-ordination of town planning in the Bay of Cadiz area". These "co-ordination bases" propose a model founded on two main principles: preservation of the area's natural potential and maintenance of the traditional polynuclear urban system.

In practice, however, only modest results have been achieved, while conflicts and speculative tendencies have been aggravated by the economic crisis.

Mr ZOIDO appealed to the Council of Europe and the European Community to save this unique site of European importance.

Summary of discussion

MM KORMOSS, POSOCCO and UTHOFF joined in a discussion on polycentric urban systems, which would be the models of the future provided that planning policies were able to define and co-ordinate the roles of the various urban points as well as the uses of land and water areas.

Mr SCHWEIG emphasised the need for overall physical planning, even at the expense of substantial initial investments, which should be offset against the alternative diseconomies incurred by isolated, individual projects.

THE WADDEN SEA

Example of a particularly endangered section of European coasts.

6. The Wadden Sea, its importance, the dangers facing it and the need for protection (CDAT (85) 21).

Rapporteur: Mr Holger WESEMÜLLER
WWF - Environment Foundation

A very complete presentation of the special features of this unique European coastline is given by Mr Wesemüller, who is in charge of co-ordinating associations for the protection of nature in the Wadden Sea within the WWF (World Wildlife Fund) and the UICN (International Union for the Conservation of Nature).

The Rapporteur welcomes the measures which have been taken by riparian countries and the interest shown in the Wadden Sea by the European Parliament and the North Sea Conference. He notes, however, that the protection of this unique ecosystem is ineffective in practice, with the conflict between development and the environment being all too often resolved at the expense of the latter.

The long-term conservation of the natural resources of the Wadden Sea can be ensured only to the extent that planning takes the same account of ecological requirements as of socio-economic requirements. This is particularly so in the case of the Federal Republic of Germany, where the Länder of Lower Saxony and Schleswig-Holstein are planning to set up marine national parks next to each other, though with a very different approach to protection and zoning.

The Wadden Sea would benefit from increased international co-operation, which could take the form of setting up a permanent international office with the task of co-ordinating co-operation between riparian countries.

Summary of discussion

The discussion in which MM SPANIER, von HINUBER and FELDT took part, concerned the division of regional planning responsibilities in the Federal Republic of Germany. Although the wetlands of the Wadden Sea belonged to the Federation, the latter had delegated its administrative and planning powers to the Länder.

For Mr Spanier, the Wadden Sea problem had been settled in theory and priorities had been clearly formulated. The theory had not yet, however, been put into practice. For Mr Spanier, it was essentially a question of "Vollzugsdeficit", an insufficient implementation of protection.

National protection and development measures

7. Federal Republic of Germany: Integrated concepts for the protection of the Wadden Sea (CDAT (85) 22).

Rapporteur: Mr Dietrich LUDERWALDT
- Niedersächsisches Landesverwaltungsamt

The government of the Land of Lower Saxony has decided to set up a national park in the Wadden Sea area after many years of study, which confirmed the need to protect the entire European Wadden Sea area of the North Sea.

In 1982, the part pertaining to the Land of Lower Saxony, amounting to some 30% of the Wadden Sea, was declared a priority area for nature and landscape within the Land's regional planning programme, with the result that planning requirements have been met from that time onwards.

For the Rapporteur, however, even though the establishment of this national park represents an important step at national level, the long-term success of the operation will depend on whether international solutions for the overall protection of the Wadden Sea area can be found.

Summary of discussion

MM SCHNEIDER, LEFEUVRE and WESEMÜLLER welcomed the initiative, while pointing out a number of contradictions with other schemes such as the development of the Dollart Estuary, which was to be integrated in the park at a later stage. For Mrs BERSANI, it was no use trying to cope with conflicts by avoiding them and Mr KLUG observed that the cost of human interference in ecosystems often had to be paid by several generations. Mr SPANIER wondered whether coastal regions might not be selected for new forms of development compatible with environmental policies.

8. Netherlands: Dutch policies concerning the management of the Wadden Sea (CDAT (85) 23).

Rapporteur: Mr Machiel IN'T ANKER
National Physical Planning Agency - The Hague

The Wadden Sea is both a vast and a unique nature area. Dutch government policy is directed towards the protection, conservation and, where necessary, restoration of the Wadden Sea as a nature area.

For the Dutch government, the presence of human activities in this area, where the protection of nature and landscape has priority, calls for a careful policy involving both the establishment of clearly defined limits to these activities and the creation of sufficient room for the process of weighing up the interests of different activities one against the other.

These considerations led eventually to the development of an integrated planning model for the Netherlands in the form of a general management strategy for the Wadden Sea defining:

- Wadden Sea management objectives;
- the impact of these objectives;
- their administrative and legal implications.

These objectives are set out in both sector management plans and spatial plans.

Summary of discussion

Considerable interest was shown in the model. Mrs DEJEANT proposed that the model should serve as a reference for the preparation of standards and guidelines to help governments work out their own coastal policies. The problems were the same for all the coasts of Europe. They were qualitative problems linked to pollution and the over-exploitation of resources, complicated by spatial limitations.

9. Denmark: The Danish Wadden Sea - development problems and protection (CDAT (85) 24)

Rapporteur: Mr Svend TOUGAARD
Fishery Museum, Esbjerg

The Danish part of the Wadden Sea is the smallest and least disturbed and its coastline is the least populated. It is one of the last resting areas for birds before their migration towards the far north. It has large stocks of seals and some very fine flora and landscapes.

Denmark considers that it has a special obligation to preserve these exceptional conditions in a site of worldwide significance.

The Rapporteur outlines a long tradition of protecting the Danish Wadden Sea by different means ranging from the ban on hunting in the spring and summer to government purchases of land to turn it into nature reserves.

The Rapporteur admits, however, that by no means all problems have been solved; large areas of saltmarshes have been lost as a result of diking; tourism remains a crucial problem; military activities disturb the land of Rømø and the town of Esbjerg will not be equipped with a sewage treatment plant before 1992.

10. United Kingdom: Environmental protection of the East Anglia Coast (CDAT (85) 25)

Rapporteur: Mr Christopher BLAGDEN

Department of the Environment - Directorate of Rural Affairs - Bristol

Mr Blagden's very comprehensive report describes how coastal protection has been taken into account in legislation governing regional planning in the United Kingdom and more particularly in Great Britain. The protection of very characteristic landscapes and areas is supervised by two statutory bodies: the Countryside Commission and the Nature Conservancy Council, of which there is no equivalent in other countries. Mr Blagden also draws attention to the importance of the role played by the public, which is directly involved through voluntary bodies in the protection of the coastal heritage.

The coast of East Anglia presents many similarities with the Wadden Sea, from the point of view of physiography, civilisation and present-day constraints.

On the basis of three case studies:

- the Wash - land reclamation for agriculture;
- the Broads and the Yare flood control barrier;
- Sizewell - nuclear power station.

Mr Blagden examines how these constraints can be taken into account in development projects reconciling local and national interests.

GENERAL DISCUSSION

Summing up the reports and discussions, the Chairman suggested that the general discussion should adopt the following thematic structure:

- the theory of planning and its effective application to the protection of the Wadden Sea;
- Dollart harbour, a foreign body in a protected area;
- the relationship between environment and employment;
- the interconnection of systems, responsibilities for coastal planning;
- the role of international co-operation for the long-term preservation of coastal areas.

After Mr AUGST had presented the Schleswig-Holstein national park project and commented on differences in planning approach compared with Lower Saxony. MM MALCHUS, WESEMÜLLER, UTHOFF, SCHNEIDER and FELDT drew attention to the shortcomings of such projects and the incoherence resulting from the lack of co-ordination between countries.

For MM MENGE, AUGST and von HINÜBER, it was most important that planning should be accepted by the population and should be made effective. The two German Länder had opted for solutions aimed at avoiding conflicts which could hinder the recently initiated policy of protecting the whole of the Wadden Sea.

The Land of Lower Saxony had opted for a ban on most activities, while allowing many exceptions. The Land of Schleswig-Holstein, on the other hand, intended to protect less expensive areas and to lay down less strict criteria.

After a reference to problems arising from restrictions on fisheries and a presentation by Mr von HINÜBER of the Dollart harbour construction scheme, the discussion turned to the relationship between the environment and employment.

For MM LEFEUVRE, WESEMÜLLER, SCHNEIDER and SPANIER, conservation was not anti-economic, although it required a comprehensive approach to problems extending over the medium-term in order to allow for the effects of all types of human activities to be evaluated.

It was therefore necessary to strengthen international co-operation, which, in Mr IN'T ANKER's opinion, should be gradually extended starting from simple instruments. According to Mr GRIP and Mrs DEJEANT, the latter could draw on the experience of the Baltic Sea and integrated programmes for the Mediterranean.

MM TOUGAARD, UTHOFF, WESEMÜLLER and LEFEUVRE joined in the discussion at that point, saying that conservation should rest on rational scientific and not administrative foundations, taking into account interrelations with the hinterland and the high seas.

These statements are enlarged upon in Chapters III and IV of Part 2 of this report.

THE FOLLOWING CONCLUSIONS WERE ADOPTED IN CUXHAVEN:

CONCLUSIONS OF THE SEMINAR

The European Seminar on "Development and planning of coastal areas" took place at Cuxhaven from 7 to 9 May 1985 at the invitation of the Minister of the Interior of the Land of Lower Saxony, bringing together around 60 experts from 13 European countries, representatives of the Parliamentary Assembly and of the European Communities.

The problem

- Coastal areas are of a particular importance not only for the economic, social, cultural and ecological development of the respective countries but also for Europe as a whole. The preservation and the development of these regions must be undertaken within an overall provisional and coordinated regional planning policy thus ensuring their balanced development.
- Coastal regions are areas of interaction between the (high) sea and the (hinter) land. They are thus very dynamic areas where the demands of socio-economic development and the conservation and preservation of natural resources and beauties must be reconciled. Where, especially in coastal regions, human and environmental resources form a basis for (further) economic and social development, these resources at the same time imply a limitation to development. In the planning of coastal regions, future development of existing potential should not be impeded.
- Although the potential conflict of development and preservation in coastal areas is similar in all European countries, there exist regional particularities needing special attention and the elaboration of special political approaches. These concern mainly the North-Sea basin, including the Wadden Sea, the Baltic Sea region and the Mediterranean.

The approaches to solutions

A variety of solutions has been elaborated at bi-, tri- and multinational levels:

In recent years, a large number of conferences, political and experts meetings have taken place on this subject. Recommendations, conventions, agreements and common policy lines were adopted about general aspects of development problems as well as sectorial questions such as nature conservation, pollution and the industrial use of the coastal areas.

In this respect should be mentioned notably:

- the European ministerial Conferences for Regional Planning and for the Environment;
- the Conferences of European Island Regions and of the Mediterranean Regions;
- the Conferences of peripheral and island regions ;
- the international Conference on the protection of the North Sea;
- the UNEP world conservation strategy, in particular the concept of "sustainable use";
- as well as several other initiatives taken by the Council of Europe, its Parliamentary Assembly, the European Parliament, the Commission of the European Communities and specialised non governmental organisations such as the Conference of peripheral maritime regions.

The main objectives and guidelines of the European Regional/Spatial Planning Charter should be fully implemented for the combined land/sea planning of coastal regions.

Special attention should be paid to transfrontier cooperation and coordination in planning of coastal regions.

Request for action

Having analysed the results of this work, the Seminar participants express their opinion that the existing policy guidelines offer in principle sufficient instruments to tackle the specific problems of coastal regions. Priority should now be given to the full implementation of existing recommendations and agreements.

A large number of national and international legal instruments exist already, however they often need ratification, application, implementation and mechanisms of control.

The main action line has to be within the framework of regional planning policies where the planning of coastal waters should follow the same considerations as planning on the land, including regional planning working instruments, such as Environmental Impact Assessment.

1. Actions with a view to better coordination

Governments and European institutions as well as regional and local authorities where appropriate are requested as a matter of priority to take actions with a view:

- to define clearly and disseminate international, national, regional and local policies for coastal land/sea planning and development;
- to intensify cooperation and to coordinate policies between neighbouring countries on all policy levels, as well as at European scale;

- to set up mechanisms to monitor the implementation of existing agreements, conventions and recommendations;
- to further the realisation that in coastal regions sea and land are integrated parts of a single planning unit;
- a comprehensive inventory of land and marine data for planning purposes on national level is an indispensable basis for the definition of specific coastal policies. International coordination (eg in the form of an international information system) is necessary;
- spatial planning and development schemes worked out within a comprehensive regional planning policy must take into consideration the interest of the local population and assure its direct participation;
- European institutions - and especially the Council of Europe and the European Communities - should assist countries in their wish to solve planning problems on the basis of a common approach and to develop and harmonise planning objectives and norms for development and protection and should stimulate and organise their cooperation;
- the European Conference of Ministers responsible for Regional Planning is invited to undertake actions in this field especially as far as the collection of information and data is concerned and should integrate these results into the European Regional Planning Strategy.

2. Action with regard to the division of responsibilities

- The present complex situation of interwoven horizontal and vertical responsibilities especially for the maritime part of coastal areas has to be clarified to make it operational. Clear and simple administrative structures are necessary for decision-making in development and integrated planning of these areas;
- Local authorities should have an overall management responsibility for development and planning of the coastal fringe within the coordinating structures of regional and national levels;
- Regulations concerning coastal areas should be clear and efficient.

3. Specific aspects of the North Sea area

The North Sea is to be considered as unity. Therefore a common responsibility has to be developed by all bordering countries for its development and protection;

- The existing (inter)-national organisation for obtaining and exchanging information of scientific and political value should be supported.

4. Specific aspects of the Wadden Sea

- The Wadden Sea is a particularly sensitive part of the North Sea coast and needs specific measures for protection. The existing cooperation in this field between the countries concerned must be strengthened and further developed. Moreover, more attention should be paid to the ultimate effects of pollution in other areas, especially of the rivers (c.q. Rhine, Elbe) on the Wadden Sea.
- Work done by different countries within the Joint Declaration is considered as very important and shows fruitful results. Therefore an (institutional) provision for the implementation and the further development of the Joint Declaration should be arranged. Special attention should be called to the Resolution on the international Wadden region of the European Parliament (*).
- Special projects for the protection of these areas such as creation of national parks, marine reserves or protected zones must be combined with clear concepts and instructions for preservation.
- The Wadden Sea being point of The European (natural) heritage, it would be useful to examine the possibilities to implement this concern with formal (legal or policy) instruments. Possibilities named during the seminar were amongst others:
 - * bringing the Wadden Sea as a whole under the application field of international conventions and agreements already existing;
 - * setting up a tri- or multilateral convention for the protection of the Wadden Sea;
 - * designating the Waddensea as an "international nature park", primarily on the basis of integration of already existing national policies.

5. The Mediterranean Basin

Whilst the Seminar gave emphasis to the problems of the Wadden Sea, it became apparent that many similar problems concern the countries of the Mediterranean Basin, especially the effects on the coast by external economies and social factors which encourage the maximisation of tourist and other development.

Such development, in many instances, has adversely affected the natural environment of continental and island coasts.

It is, therefore, recommended that Mediterranean member states adopt comprehensive development policies of their coastal regions providing also for the preservation of the natural environment especially of sensitive ecological areas (land and sea) and closely cooperate between them regarding such a development of the transfrontier coastal regions.

(*) Journal Officiel Nr C 172/161 of July 2, 1984

6. Follow-up

Periodic meetings of representatives of local, regional, national administrative and political levels and scientific social groups concerned should be organised for the evaluation of problems and results as well as for the elaboration of new planning strategies. The Council of Europe and the Commission of the European Communities are particularly invited to continue their efforts in this field and to ensure the organisation of necessary follow-up meetings.

PART II: THEMATIC REPORT ON THE CUXHAVEN SEMINAR

CHAPTER I: Europe's coastline: a rich and desirable but limited, fragile and beleaguered area

Introduction

Although essentially devoted to the Wadden Sea, the first European Seminar on "The development and planning of coastal regions" afforded an opportunity for a general review of constraints and assets specifically related to coastal situations.

This was the approach adopted by Mrs LANGEDIJK-DE JONG, who presented the introductory report of the seminar on the theme "The possibility and need to protect coastal regions in general with special attention to the Wadden Sea".

Recalling the principles embodied in the World Conservation Strategy, the Rapporteur pointed out that the natural environment is the basis and limitation of all development. The protection of the environment is a vital necessity, not only for ourselves but also for future generations. This applies especially to coastal areas, where biological production is more intensive than elsewhere and which fulfil an irreplaceable nutritional and economic function.

Apart from their fishing resources, coastal regions are often areas of heavy industrial activity; they have attracted new resources related to sea-bed operations, and they offer many recreational opportunities, besides providing transit facilities for many visitors.

These regions are alternatively sought after, used or attacked:

- by a large local population;
- by frequent interference in often irreplaceable ecosystems;
- by the heavy pollution to which they are exposed, of industrial, urban, maritime or mining origin.

Professor KORMOSS of the Collège d'Europe in Bruges used a series of maps to illustrate the pressures to which European coasts are exposed. His conclusions were as follows:

- The major concentrations of urban population are situated on the European seaboard, which proves the intrinsic link between the coastal environment and population density. Five major European urban regions may be distinguished:
 - . in North-Western Europe, the Rhine, Meuse and Scheldt delta (30 million inhabitants);
 - . the Southern Alps and their maritime front (20 million);
 - . south-east Britain (17 million);
 - . the Paris region and its maritime front (13 million);
 - . the mouth of the Weser and the Elbe (8 million);

- . the Rome-Naples axis (8 million);
- . the Rhone axis and its Mediterranean front (7 million).
- Population movements occur essentially along the major axes connecting the North Sea and the Mediterranean, and concentrations may be observed and located at different strategic points along the coastlines;
- Energy production and oil refining capacity is mainly situated in coastal regions.

The complexity of the factors related to coastal planning may be summed up in the definition offered by Mrs DEJEANT in the following terms: "Coastal or littoral areas possess a volumetric dimension, extending horizontally and vertically, insofar as they are the point where seven different environments meet: the water surface, the overland airspace, the oversea airspace, the continental base, the undersea base and the marine mass. It is an interconnected system, subject to closely interwoven and sometimes conflicting interests, which attract a range of increasingly differentiated uses originating as far back as the source of rivers in the hinterland and extending out to sea" (1).

1. The special case of the Wadden Sea

1.1 The Wadden Sea: an area of European importance

Five of the 12 reports presented at the Cuxhaven Seminar were devoted to the Wadden Sea, highlighting with audiovisual aids the exceptional nature of the tidal flats.

1.1.1 Position and structure

Mr WESEMULLER described the Wadden Sea as tidal flats extending along the southern coast of the North Sea, from Den Helder in the Netherlands as far as Esbjerg in Denmark, over a distance of 450 km as the crow flies. On the seaward side, the mudflats are delimited by the chain of archipelagos of West Friesland, East Friesland and North Friesland and by the Danish North Sea islands. They cover a vast area extending over 7,500 km² altogether with an average width of five to seven kilometres in the central area, widening to 10 to 20 km within the Schleswig-Holstein area. More than 60% of the Wadden Sea is situated in West Germany, 13% in Denmark and the rest belongs to the Netherlands.

The tidal flats are made up of three main types of ecosystems or biotopes which are closely interconnected:

- the area permanently covered with water, which occupies about one-third of the total area;
- the actual tidal flats or eulittoral, which occupy somewhat less than two-thirds of the area and which are periodically exposed or covered with water with the ebb and flow of the tide;

(1) Maguelonne DEJEANT: La notion juridique de zone côtière: application à la méditerranée (CDAT (85) 28).

- the supra-littoral area, which occupies about 5% of the total, consisting of the salt meadows and sandy beaches, which is only encroached upon very occasionally by very high tides;
- lastly the epilittoral, an area of dunes and salt marshes, which still owe their existence to the tidal area, but terrestrial life systems are no longer so directly dependent on it as the previous three ecosystems.

The tide has a considerable influence on this complex system, whose configuration is constantly changed by tidal movement. The system is open both to the sea and to the land, as well as to several large rivers, the Rhine, the Weser, the Elbe and the Ems.

Previous investigations of sea currents, the drifting of harmful substances, sedimentation and erosion processes show that the tidal flat/island system has to be regarded as a unit which is an important component in vital North Sea phenomena.

1.1.2 Role and importance of the Wadden Sea

- The Wadden Sea is one of the world's five most important wetlands; it is the largest in Europe and offers landscapes of exceptional natural beauty. Several speakers in fact quoted extracts from poems by Heinrich Heine, in which he expresses his fascination for the place.
- The high bioproduction of certain areas of the eulittoral reaches peak values. The considerable range of nutrients available gives the tidal flats an irreplaceable function in the life cycle of many animals. It provides an area of reproduction and growth for 20% of the fish caught in the North Sea and serves as a resting, wintering and hatching area for millions of migratory birds.
- More than 2,000 species of flora and fauna adapted to the special conditions prevailing in this area contribute to the high bioproduction of the tidal flats. Several hundred species can live only there and nowhere else. A substantial seal population uses them as a resting and breeding ground.
- The tidal flats fulfil an important function in the sedimentation and mineralisation of organic detritus and act as a water filter; they could be thought of as the septic tank of the North Sea.
- The entire tidal flat area holds a key position for neighbouring and also for distant ecosystems. Its specific functions cannot be replaced or recreated elsewhere.
- Lastly, as Mrs LANGEDIJK-DE JONG points out, the tidal flats can act as an indicator of imbalances and anomalies arising some distance away. Observation of the changes occurring in some of its organisms which act as pollution indicators can be of great value for the North Sea as a whole.

1.2 Threats to the Wadden Sea

The Wadden Sea is not only a unique natural area whose vital functions are closely intermingled; it is also the scene of many very tightly interrelated human activities. The surrounding regions, which have been marked by the seaward orientation of Western economies, now contain a large population affected by the economic crisis.

For centuries living conditions were extremely precarious in the area, where the sea constituted a permanent threat. Since the second world war, however, the Wadden Sea itself has been endangered by man's technological advances. The intensive uses made of the tidal flats now compete with each other. The results include: a situation of acute conflict over the use of space; the loss of biotopes; air, land and water pollution; the destruction of landscapes and, owing to the loss of large areas, a loss of effectiveness of its water treatment qualities, leading to a decrease of fish stocks and a less resistant fish population.

According to Mr IN'T ANKER, human activities may be classified into four major categories, as follows:

- occasional large projects such as land reclamation, the construction of dykes, harbours and seaways, new industries and mining activities;
- more permanent large-scale activities, such as mass tourism and defence activities;
- daily activities such as sea and river shipping, fisheries, the maintenance of coastal embankments and shipping lanes, agriculture and industrial production;
- scientific research and conservation activities.

In the past, such activities were usually on a much smaller scale, and their development in recent decades has given rise to a need for policies aimed at reconciling conflicting interests.

The Wadden Sea has its equivalent on the East Anglia coast of England, as shown by Mr BLAGDEN in his report on: "Environmental protection of the East Anglia coast".

2. Similarities between the Wadden Sea and the coast of East Anglia

According to Mr BLAGDEN, East Anglia shares many natural and historic linkages with the area backing the Wadden Sea:

- the "Wadden"/"Watten", that is, sand and mud flats and shallows backed by salt marsh, sand dunes, heath and fen are also features of the East Anglia coast, which is constantly being remodelled by the action of the sea and where the inhabitants are faced with problems of flood control;
- the East Anglian counties of Lincolnshire, Norfolk and Suffolk share a common language root with the regions backing the Wadden Sea in the northern Netherlands, the Friesian regions of Germany and the province of Jutland in the south-west of Denmark;

- the grouping of peoples is the same (Angles, Saxons and Jutes);
- the two coasts have traditionally shared a common historical interest in the sea, reflected in busy maritime trade, fishing, sea-bed exploration, land drainage and the construction of dykes.

Natural characteristics of the coast of East Anglia

The coast of East Anglia, referred to as a "soft coast", is very interesting from the physiographic and stratigraphic point of view. The coast is formed of alternating lengths of cliff erosion and deposition of sand, mud and shingle on its beaches and lagoons. In the Wash, a large valley flooded at the beginning of the Holocene, a salt marsh has formed and merges into a belt of drained fen.

The complex relationship at the ever changing water's edge between the sea and varied types of soil produces different habitats with their specially adapted network of vegetation, fauna and flora; twelve types of habitat have already been classified, according to scientific, biological, ornithological, physiological and geological interest.

Development pressures along the coast of East Anglia

This coast, once remote from the pressures of economic centres and not on through routes to other parts of the country, is less developed than many. Consequently it has been attractive for secret and potentially dangerous activities, always for defence purposes, an interest reinforced by its strategic position facing Europe. Other recent features along this coast have been energy production and port development reflecting a reorientation of UK trade towards Europe.

Mr Blagden distinguishes two types of threats to the coast:

- small-scale local development, which, owing to the transfer of planning powers from county to smaller district councils, is often exempt from all planning control and can substantially affect both landscape and habitats. Safeguards against such local development are administratively cumbersome and expensive and are rarely used;
- a large-scale, heavy development by government departments or statutory bodies (eg gas, electricity, water) and national or international companies. This type of development, where the national strategic interest may be held to override the conservation interest, concerns defence, energy production, communications, land drainage and reclamation for the creation of agricultural land and for sea defence and flood control.

The Mediterranean coastline has its own characteristics, which are not the same as those of north-western Europe.

3. Evolution of the Mediterranean coastline

Professor Fiorelli drew a comparison between the coastal system of the Mediterranean and that of the North Sea and spoke about the former's structural characteristics and recent tendencies.

The competition for land and the fragility of the terrestrial and marine environment are also features of Mediterranean coasts. The vegetation cover and marshlands of the coastal area have suffered serious degradation. The coasts are heavily eroded, largely due to the dredging of waterways and urbanisation. Typically Mediterranean agriculture is gradually giving way to a continental type of farming and rural areas, where wages and social conditions are poor, are exposed to strong urban, industrial and tourist pressures.

The marine environment is constituted by a sea which is connected to the ocean only by the Suez Canal and the Straits of Gibraltar. Water renewal is very slow; the biological self-purification process is inadequate (especially in the shallow and closed-in northern Adriatic), and fishing activities, which are disorganised, are encountering increasing difficulties.

Recent tendencies in the Mediterranean

Professor Fiorelli finds that the evolution of the Mediterranean "system" is affected by three main types of phenomena:

- Demographic changes, with a sharp increase in the population of North African and Middle Eastern countries. After the year 2000 the population of the southern coastline of the Mediterranean will exceed that of the northern coastline and, in fact, for the first time in history the population of the whole of Europe. Coming in addition to the flow of tourism and migration towards sunny coasts, this population growth is exerting and will exert acute pressure on Europe's Mediterranean coastline, where the population density is already high. One economic consequence has been an increased demand for labour, which cannot be met by the Mediterranean economy.
- The second decisive development for the Mediterranean has been the substitution of new sources of energy for petroleum. In the past, the Mediterranean used to account for 35% of the world's oil traffic. (It is worth noting incidentally that 10% of the oil transported was spilt each year into the sea.) The oil traffic has diminished considerably and a great deal of reconversion work is being carried out on the European side of the Mediterranean as a result of the cutback in petrochemical and refining activities. In Italy, the consumption of oil products has fallen from 105 to 85 million tons, and whereas the official refining capacity is 160 million tons, the third largest in the world, it is estimated that requirements will fall to 70 million tons over the next few years. New refining capacity and petrochemical industries are simultaneously being introduced in North Africa and the Middle East, so that the end of the role played by the European side of the Mediterranean as an "oil intermediary" is probably in sight.
- Lastly, Professor Fiorelli notes one positive trend resulting from the deindustrialisation process, which is the release of coastal areas; these are now being used in Italy and France for new experiments in urbanisation and for the introduction along the coast of groups of advanced non-polluting industries and science parks.

The example of Cyprus, with its very limited hinterland, is quite characteristic of the type of constraints which arise from coastal development. These include:

- the conflict between agricultural uses on the one hand and industry and tourism on the other;
- the spread of second homes along the coast for holidaymakers and wealthy pensioners from the Gulf states, Saudi Arabia and Europe;
- coastal pollution due to industrial and household waste and to port development;
- the degradation of sites, including archaeological sites, owing to the growth of tourism and land speculation attracted by the recreational assets of the island.

Cyprus also suffers from a lack of infrastructures (in the sectors of tourism, communication, energy, water supplies, sanitation etc) and has had to adapt over the last twenty years or so to an unprecedented spate of development, which has been accompanied by a substantial fall in the population of rural areas.

The example of the Bay of Cadiz on the Atlantic coast, with its marshes and salt marshes, sand dunes and long strips of beaches, features the problem of an urban fabric which was still quite concentrated in 1950 and which, under the pressure of growth of population and tourism, is turning into an anarchic conurbation.

The conclusions may be drawn from Mr Fiorelli's opinion that coasts constitute the most conspicuous part of any system; they are areas of interference between different worlds, meeting places of economic and social phenomena and polluting processes with far distant origins, which have to be considered from a general standpoint. Coastal areas should be looked upon as indicators of structural problems.

The following chapters gives an account of the coastal protection and development policies put forward at Cuxhaven.

CHAPTER II: Concepts and forms of protection of coastal regions

1. The Netherlands approach

Following a lengthy parliamentary debate, during which the public was consulted, the Netherlands government drew up a general strategy for the management of the Wadden Sea with the co-operation of the municipal and provincial authorities concerned, Mr In't Anker commented on the approach underlying the preparation of this management strategy, which is applicable in sectoral management plans as well as in regional land use plans.

The basic objective is the conservation of natural structures and processes, species of flora and fauna and biotopes, as well as the restoration of degraded areas. This objective may be achieved through five target situations considered by the Netherlands government:

- a situation which is as near as possible to that in a given base year;

- the preservation of or return to a situation which is as rich as possible in biotopes and species of plant and animal life;
- a situation in which the food supply is as plentiful as possible, especially for fish and bird populations;
- a situation which is as close to nature as possible;
- a situation which makes the largest contribution to preserving natural processes and threatened species.

Each of these management aims has different effects on future development:

- in the first case, referring to a past situation has the disadvantage of ignoring the intrinsic, dynamic characteristics of an environment such as the Wadden Sea;
- striving after a situation in which there is the greatest possible wealth of biotopes and species would enhance the natural wealth of the Wadden Sea, but might interfere with natural processes of adjustment;
- a situation concentrating on the food supply would undoubtedly be desirable as far as fish and bird stocks are concerned, but it might disturb the organic equilibrium of the local environment and increase eutrophication;
- striving after a situation which is as natural as possible fits in with the policy of the Netherlands. Although it is true that in this very densely populated country there are few places unaffected by human activities, the Wadden Sea occupies a very special position in this respect and has remained to a large extent unaffected;
- lastly, giving priority to the preservation of threatened processes and species, which may necessitate human intervention, may on the other hand, imply the neglect of other (as yet) non-threatened species.

In the light of these arguments, the Netherlands opted for a combination of the last two solutions, which concentrate on:

- maintaining and restoring natural processes operating in the Wadden Sea and ensuring that these processes may continue undisturbed;
- applying active management measures only when necessary in order to protect fundamental ecological values;
- compensating for the negative effects of human activities.

The theoretical approach, which is to serve as a basis for plans of action, may be contrasted with the pragmatic approach adopted in the United Kingdom which reflects the subtlety of the different situations encountered.

2. The coastal protection system in the United Kingdom

2.1 Conservation legislation

Mr Blagden points out that conservation legislation in the United Kingdom refers to the notion of "natural heritage". This heritage is defined as including the fauna and flora, geological and physiographical features and landscapes. The coast is considered to be an integral part of the natural heritage.

A recognition of the need to protect the environment in general underlies development plans, which include proposals for land use. These proposals are contained in mandatory structure plans prepared by county councils, district councils and local authorities. These plans may be subject to a public enquiry before an examining panel or department of the environment inspectorate. In the case of the special protection of particular areas, geological formations and species of flora and fauna, the land concerned remains for the most part in private ownership and relies on voluntary co-operation of landowners or on management agreements with the latter for its conservation.

Countryside conservation in England and Wales may take the form of the establishment of national parks, the designation of "areas of outstanding natural beauty", or "heritage coasts". The national parks cover 10% of the country. There are ten of them, including five coastal parks. Similar legislation is now proposed for a special lowland area in East Anglia, the Broads. The National Parks Authority is responsible for drafting specific management and development control plans, in line with the plans drawn up by the counties. One aim of the national parks is to encourage the public to discover nature and enjoy it.

The areas of outstanding beauty are more oriented towards the conservation of traditional agricultural areas. There are currently 35 such areas, covering approximately 10% of England and Wales and including 20 areas with substantial coastlines. Local planning authorities are required to include policies for landscape conservation in their structure plans.

The Countryside Commission, the authority responsible for countryside conservation, has identified 38 heritage coasts, covering 30% of the coasts of England and Wales, which were considered as warranting special planning and management measures by reason of their outstanding beauty. Half of these heritage coasts now come under special management plans established by the county councils in consultation with the Countryside Commission.

The creation and management of nature reserves are the responsibility of the Nature Conservancy Council, an advisory body on nature conservation matters and policies in Great Britain (England, Scotland and Wales). There are at present 195 nature reserves, of which about a quarter are on the coast. The areas in which nature reserves are established may be purchased, leased or subject to a management agreement (60% of them). The Nature Conservancy Council also has a statutory duty to identify Sites of Special Scientific Interest (SSSIs). These cover some 6% of the area of Great Britain, including the Wash and the East Anglia coast. They are selected according to standard criteria and their conservation is brought to the notice of local planning authorities. Many SSSIs are situated on the coast.

Local authorities are also empowered to designate local nature reserves, of which 25 are situated on the coast, subject to the approval of the Secretary of State for the Environment. Grants are made to local authorities by the Nature Conservancy Council for the management of these reserves.

Lastly, one of the characteristics of the conservation system in the United Kingdom is the importance of the role played by voluntary bodies, which in consultation with the Countryside Commission or the Nature Conservancy Council may purchase or lease land for conservation. One of these voluntary bodies, the National Trust for England, Wales and Northern Ireland, today owns 663 kilometres of scenic coastline and 15 kilometres on the coast of East Anglia.

Apart from the great diversity of conservation systems currently applicable, the real originality of the British system has been the general survey of the coastline, first published in 1946, on the basis of which specific management plans have been drawn up for each type of coast.

2.2 Inventory and planning of the coast in England and Wales

The first report, on "The beauty, use and misuse" of the coast of England and Wales, was published in 1946 at the request of the Ministry of Town and Country Planning. As a result of this very detailed study, from 1963 onwards local planning authorities had to include the following four criteria in their coastal development policies:

- the identification of areas to be safeguarded;
- the identification of areas to be used for development and tourism facilities;
- the identification of sectors for restoration;
- the scientific interest of sites.

This first inventory of the coastline was followed by numerous reports and regional conferences on coasts, which led to the establishment of coastal planning criteria based on:

- a study of the recreational value of coasts;
- the submission of proposals and recommendations on coastal conservation;
- a schedule of 371 coastal sites analysed according to their degree of scientific interest and geomorphological characteristics;
- the definition of future policies for the planning and protection of undeveloped coasts;
- a chart of the impact of human activities on coastal areas, showing for 62 activities the type of coastline affected, the effect of these activities on the natural environment and possible ways of minimising harmful effects;
- the introduction of the concept of "heritage coasts" with an inventory.

These planning criteria were approved in 1972 by a Department of the Environment circular on "The planning of the undeveloped coast" asking county authorities to prepare management plans for these coasts. Four such plans refer to the coast of East Anglia:

- the plan for Development on the Lincolnshire Coast (1982), which defines the coastal area and within it areas and policies for conservation and tourism development, subject to independent local enquiry;
- the plan for Land Reclamation on the Lincolnshire Coast (1982), which aims to prevent such reclamation pending the outcome of research into sedimentation and invertebrates;
- the Norfolk Heritage Coast Management Plan (1978), which discusses the pressures and management possibilities in 21 zones of the coast;
- the Suffolk Heritage Coast Management Plan (1978), a non-statutory plan like the three previous ones, which is in fact a pilot experiment in the management of the coastal heritage.

The policies advocated by the above plans have to be adhered to in local plans.

In a very different context, the Venetia experiment is an attempt at an integrated strategy for the conservation of water and land systems.

3. Protection or restoration of a degraded area: the Venice Lagoon Restoration Park

Mr Posocco, speaking on behalf of the Regional Secretariat for the Territory of Venetia Region, gave an account of a scheme for a restoration park in the Venice Lagoon.

The Venice Lagoon, which has a half-moon shape, extends over a distance of 52 kilometres from the mouth of the Brenta-Bracchiglione in the South to the mouth of the Sile in the North. Its width varies between 8 and 14 kilometres and it has an average depth of 50 centimetres. The lagoon, which is connected to the sea only through three openings, acts as an outlet for a very dense network of canals and rivers, draining an area of 2,009 square kilometres with a high density of population, industries and farming activities. The annual input of water is 900 million cubic metres.

Mining pollution, both from spot and diffuse sources, has gradually been increasing and has caused a high degree of eutrophication of the basin, whose economic role, particularly in the field of aquaculture and fisheries, is linked to its aesthetic, cultural and tourist value.

The Venetian authorities' approach to regional planning is not restricted to economic and socio-economic considerations. Its environmental management and protection policies are based on principles aimed at reconciling man with his environment through the recognition of the cultural life and identity of a region, which is expressed through a collective language. Environmental protection, extending beyond the objective of safeguarding the countryside, seeks to identify the optimum use of the region's resources.

The Venice Lagoon restoration scheme is based on the regional water sanitation plan, which pursues the following objectives:

- generally improving the interior and marine ecosystem of the North Adriatic, which receives all the waters of Venetia;
- achieving the best possible degree of protection of water resources in the light of economic and social development requirements.

A master plan for improvement of the lagoon has been established on the basis of the national law for the protection of Venice and its lagoon (1973) and the plan of the Comprensorio (made up of the municipalities of the lagoon and adjacent areas). The plan has instituted a system of measuring the pollution of water courses and sewers flowing into the lagoon. Subsequent analyses may then be used to assess schemes according to cost estimates and priorities. Another objective of the plan is to introduce a sampling network to monitor changes in the lagoon's ecosystem.

All the above plans are co-ordinated within the regional liaison plan, the purpose of which is to define regional planning and conservation objectives, which are eventually implemented through sector plans.

The policy of the regional liaison plan is to aim for a polycentric organisation of human settlements, in order to ensure the protection of the most sensitive sites, the orientation of tourism towards higher standards and more use of the hinterland to alleviate pressures on the coastal fringe.

At a later stage, the regional plan and water cleansing plan will be used to tackle the problem of diffuse pollution, particularly of agricultural origin, as part of a scheme for the complete cleansing and restoration of the Venice Lagoon and its environment.

Participants showed considerable interest in the policies adopted by the Venetia region. The experiment is being monitored by Professor Lefeuvre on behalf of the European Community.

The conservation tradition in Denmark goes back to the beginning of the century.

4. Protection of the Wadden Sea in Denmark

The oldest tradition of environmental conservation discussed at the seminar was Denmark's, presented by Mr Tougaard of the Fishery Museum, Esbjerg.

The Danish part of the Wadden Sea is a kind of "miniature" of the whole. Its waters are shallow; it has been the least affected by human activities and its coast is one of the most thinly populated areas of Denmark. The Danish conservation policy originated with the Nature Conservation Act of 1917, which limited the use of private land and allowed expropriation for conservation purposes. Successive revisions of the act in 1933, 1938, 1978 and 1983 extended the protection covering rivers, woodlands and coastlines. Since 1938, the erection of buildings within one hundred metres of the water's edge has been prohibited, and since 1969, all building activities have been subject to strict controls limiting the height of buildings and protecting the landscape, as well as to the approval of a specialised body attached to the Ministry of the Environment.

In 1978, the authority of the Ministry of the Environment was extended to the protection of sea areas. Around the same period, a landscape inventory was carried out, designating conservation areas and defining management policies to be complied with by the central, regional and local authorities in their future planning.

Various conservation systems were gradually introduced in Denmark:

- The conservation of coastal areas was initiated in 1938 and 1943 through government purchases of land, including the major part of the peninsula of Skalligen and the island of Rømø. Around the same period, 10,000 hectares of marshland were classified as game reserves.
- In 1976, the entire Danish part of the Wadden Sea was declared a game reserve, including the salt marshes. Two seal sanctuaries were designated within the game reserve. This type of protection consists in limiting access to the area and imposing restrictions on hunting.
- In 1982, the Ministry of the Environment classified the entire sea territory of the Wadden Sea as a nature reserve area, in order to protect its invaluable assets from human influence, with the result that all human and tourist activities are subject to strict controls.
- The landscape is protected against irreversible changes such as the construction of dykes and dams, harbours and navigation channels, the exploitation of raw materials or the installation of high-tension lines.
- A scientific reference area has been declared between the peninsula of Skalligen and the island of Langli, with access allowed only to a few scientists.
- The Ministry of the Environment has also purchased a substantial number of areas and small islands, where access is completely prohibited.

In 1983, the entire Danish Wadden Sea was declared an EEC-Bird Protected Area and it should soon be placed under the provisions of the Ramsar Convention.

In order to protect their share of the Wadden Sea, the German Länder of Lower Saxony and Schleswig-Holstein have decided to establish national parks.

5. Lower Saxony Wadden Sea national park project

According to Mr Lüderwaldt, conservation in Lower Saxony is an integrated concept through which the different functions and uses of land are defined within a regional planning framework down to the level of municipal land-use planning. In Lower Saxony's 1982 regional planning programme, the Wadden Sea was designated a priority area for the protection of nature and sites. That was the first step towards the creation of a national park. After several years of enquiries, the official procedure has now been set in motion.

The legal basis of the project refers back to the international definition of national parks (New Delhi, 1968), to federal legislation and to Lower Saxony's law on environmental conservation. The Lower Saxony Wadden Sea national park will be an extensive site for which conservation objectives (protection of fauna, flora, biotopes and landscapes) will have to take precedence over all other types of operations and measures.

The basic principle is that the protection of nature, habitats, flora and fauna, which are characteristic of the region, will benefit man by providing him in the long-term with a recreational area.

The new national park is to extend over an area of 2,300 hectares, on the land side as far as the protective dyke, and towards the sea as far as the major reefs and the resting places of the seals, which corresponds more or less with a depth contour of 6.25 metres. It will exclude the major shipping lanes, town and villages, the harbours on the islands and sluices outside the dykes, although Dollart harbour is to be included in the park at a later stage.

Zone 1: Zone of tranquility and rest covering some 56% of the park's area. This will constitute the hard core of the park and will include all the different types of ecosystems characteristic of the Wadden Sea biotope (lower beach, wide channels, narrow channels, sandbanks, beach mudflats (sand, mixed and silt), salt marshes, dunes). Zone I also includes resting places for seals, feeding, resting, moulting, breeding and growth areas for migratory birds, and places of refuge for wildfowl at high-tide. Access to these areas will be prohibited and human uses and activities must serve the sole purpose of promoting the natural development of the areas.

Zone 2: Intermediate zone covering approximately 43% of the total area. Access will be allowed, although all activities which might have a detrimental effect on the landscape or natural processes will be banned.

Zone 3: The recreational zone, covering only 1% of the total area of the park, consisting mainly of bathing beaches. All noisy or harmful tourist activities will be prohibited.

The park will be managed by an office, which will be responsible for co-ordinating activities in the park, implementing supervisory measures and co-ordinating research projects. It will be assisted by an advisory committee made up of representatives from the communes and rural districts, and by associations and research institutions active in the field of conservation.

6. The Schleswig-Holstein national park project

Mr Augst, representing the Ministry of Food, Agriculture and Forestry of Schleswig-Holstein, concentrated on the main differences between the plans of Lower Saxony and Schleswig-Holstein.

The park scheme has been hotly debated and will require new legislation to be passed by the Landtag.

Unlike in Lower Saxony, the creation of a national park in Schleswig-Holstein has turned into a very emotive issue. A first scheme was rejected in 1973, even though its scope was more limited. The latest bill, prepared after an extensive public inquiry, has just been tabled before the Landtag and it is expected that the new law will enter into force on 1 October 1985.

The Schleswig-Holstein national park will be smaller and will include only the tidal flats and salt marshes. Some of the small islands covered in salt meadows, the Halligen have been included, but not the larger islands. On the land side, the park does not go as far as the dykes, but starts 150 metres into the tidal flat area.

There will also be a zoning system with three zones, the content of which will be described by the current legislation in general terms, but will be specified in more detail by later regulations.

Zone I with approximately 30% of the total area is similar in many respects to the equivalent zone in Lower Saxony.

In Zone II less protection is provided, and fishing, grazing, hunting and bathing will be allowed.

Zone III will include all the remaining area, where current activities may continue.

Like in Lower Saxony, a park office will be set up, assisted by two supervisory bodies attended by representatives of the municipalities, districts, nature conservation associations and park users' associations.

Conclusion

The very elaborate conservation systems presented at the seminar still leave room for improvement and some speakers wondered whether the measures already initiated or in the planning stage would be sufficient to protect the coastal area in the long-term against the deep wounds inflicted by economic activities. Chapter III will report on the contrast between the content of protection and the effective protection of vital processes and on the problem of compatibility between social objectives and the long-term conservation of natural resources, with a presentation of some of the new solutions proposed.

CHAPTER III: Shortcomings of existing conservation systems and elements for the integrated planning of coastal regions

1. Shortcomings of existing coastal conservation systems

The discussions which followed the presentation of national conservation reports highlighted the fact that, despite undoubted progress, many shortcomings still remained, related to the difficulty of reconciling conservation needs with other interests involved in coastal areas, and to the co-existence of activities pursuing contradictory aims, such as:

- Tourism. There has been a widespread tendency in western economies in the last couple of decades for tourism, a major consumer of land to the detriment of local fauna, flora and landscapes, to be attracted by the sea. Denmark, for instance, allows cars access to the beaches as a way of protecting dunes from trampling. In the Mediterranean, the same problem has still not been solved satisfactorily, while in the Wadden Sea, water sports provide access to the furthest removed retreats of local wildfowl, thereby seriously jeopardising their conditions of survival. Although it is a source of revenue, tourism gives rise to many liabilities for the environment and still constitutes a threat to European coasts.
- Fishing and aquaculture. The problem of the depletion of fish stocks was discussed at length by participants. Whereas in the case of some species a low level of depletion would be compatible with environmental conservation in the Wadden Sea, the current level is jeopardising basic equilibria.
- To meet the requirements of agriculture and stockbreeding, marshlands are still being drained and dyked to the detriment of wetlands in the Wadden Sea and on the coast of East Anglia.

- Hunting. A very emotive issue. Although regarded as not very compatible with the notion of protected areas, hunting is allowed during part of the year in the game reserves in Denmark. It is considered unacceptable, on the other hand, by nature conservation associations in the Federal Republic of Germany, where the practice is still widely accepted to the detriment of rare migratory species, which by definition belong to the world's natural heritage and should be protected as such.
- Military activities come under heavy criticism, particularly on the coast of East Anglia and in Denmark, where firing practice is held five days a week in the reserve of the island of Rømø.
- The production and distribution of energy constitute a grave threat to the countryside and wildlife. The Netherlands, for instance, have decided to build a pipeline across the Wadden Sea and are planning to extract gas at the site of Zuidwal. Schleswig-Holstein is going ahead with a drilling scheme in the tidal flats, which would produce only 30 days' worth of hydrocarbon consumption for the Federal Republic and would cause irreparable disturbances. In the United Kingdom, there is much public concern with plans for oil exploration, the construction of oil terminals and the extension of nuclear power stations.
- The large mixed undertakings in the estuaries of the Ems and the Weser should help to solve the problem of employment, though in the opinion of many speakers they could give rise to over capacity.

A number of other problems areas, which are not properly covered by present conservation systems, were noted, including:

- the question of long-standing rights and exceptions enjoyed by certain users;
- the alarming level of some sources of pollution, such as the town of Esbjerg in Denmark, where the beaches are unfit for bathing.

In the management of such conflicts, economic and employment aspects tend traditionally to be opposed to environmental conservation, which is the case with the plan to build Dollart harbour.

2. Are environmental conservation and coastal development incompatible objectives?

2.1 Case study: Dollart harbour

The Dollart harbour scheme emerged in the seminar as the archetypal conflict between environment and employment.

Dollart bay, a site with fine landscapes and rich biotopes for fauna and flora, is situated at the mouth of the Ems river, which marks the frontier between the Netherlands and the Land of Lower Saxony.

The construction of Dollart harbour is an old project, the main objective of which is to improve the existing shipping channel and combat the silting up of the town of Emden. The dredging of the channel would provide sand and gravel to reclaim land for new industries.

When it is completed, Dollart harbour will become part of the new national park of Lower Saxony.

This scheme has already run into some strong criticism.

According to Mr Feldt, the plan cannot be justified on economic grounds. Initial estimates put investment at 1,000 million DM for the creation of 24,000 new jobs. A recent estimate raised the cost to 1,500 million DM and a similar scheme to set up a new industrial complex on the Wybelsumer Polder showed that the best that could be expected was the creation of 4,000 jobs, of which only one or two thousand would be permanent. It is also admitted nowadays that the saving on dredging costs would be more in the region of 200 million DM than the initially estimated 435 million DM.

Still according to Mr Feldt, the scheme provides no sort of solution to the problems of West Friesland, since every new job created would cost the taxpayer at least 1 million DM. He noted further that according to local plans for using the reclaimed areas, the latter would be reserved exclusively for major shipping industries, which meant that new areas would have to be found for small industries.

In Mr Wesemüller's opinion, it was regrettable that plans to create a national park should be accompanied by other plans to set up new activities. He thought that conflicts were inherent in the project itself, considering that the Wadden Sea was like a cesspool and that the construction of a harbour would have a deeply disturbing effect on the environment. It was no use trying to conceal the problems which would arise for nature, for which there was no substitute.

Mr Wesemüller said that the efforts of the authorities should concentrate more on promoting endogenous growth in the region.

Mrs Bersani said that it was unrealistic to try to integrate such a harbour within a protected area, unless every provision were submitted to a double scrutiny to check both economic and ecological effects. She mentioned an experiment tried in the French town of Vaudreuil, where a conservation charter had been established subjecting all industries operating in the area to special conditions.

Mr Schneider, referring to the European Parliament's resolution asking the Commission of the European Communities to give an opinion on the project, expressed concern at the problem of over capacity in northwestern Europe, which handicapped existing activities while seriously jeopardising the natural environment.

2.2 Relationship between the environment and economic development

According to Mr Fiorelli, nature conservation need not be anti-economic. He supported this argument by mentioning the case in France and Italy of industrial areas set aside for non-polluting advanced industries operating mainly in the commercial or tertiary sector in coastal towns such as Bari, Venice, Trieste, Marseilles or Valbonne.

Mr Wesemüller said that the protection of the Wadden Sea should also include economic aspects. He thought there were uses which subject to adequate safeguards would not be incompatible with conservation. The impact of every activity on the coasts should be checked and should be added to that of all other activities in the Wadden Sea to arrive at an overall economic evaluation. In the case of industrial projects such as those planned for Dollart harbour, the smaller concerns were doomed to disappear and the larger ones to neutralise each other. Ecology was also part of the economy insofar as it amounted to a long-term approach to land-use

policy. The space-time scale had to be changed and the longer term defence of the environment and employment should be seen in terms of the defence of a general interest which lay beyond regional or national rivalries.

Mr Spanier said that a policy of "laissez-faire" ruined the coasts. The planning of requirements and uses of natural resources was absolutely necessary, although it was to be regretted that job creation plans and measures invariably reverted to traditional methods, such as introducing new capacity. The evaluation of the results of planning operations ("Raumordnung Erfolgskontrolle") was all too often overlooked, with the result that planning failed to evolve.

A study of all the effects of human installations and activities in the Wadden Sea would add a new dimension to the understanding of phenomena and would provide a valuable decision-making tool. The qualitative aspects of coastal protection and development had to be taken into account in the definition of parameters.

Mr Spanier and Mr Schneider proposed that priority should be given to identifying new forms of development in coastal regions, which would be labour-intensive and which could concentrate assistance to industry in the marketing sector.

Both environmental policy and employment policy, however, should be looked upon only as two parts of an integrated strategy for the use of natural and human resources aimed at protecting man's conditions of survival.

3. Integrated strategy and coastal planning authorities

One of the main conclusions of the Cuxhaven seminar was that coasts should be considered as systems in which the interrelations between sea, land and hinterland should be seen as a single whole.

Mr Kormoss, summing up the extreme complexity of coastal systems, noted three types of conflict:

- conflicts between local interests and outside interests;
- conflicts between economic and ecological interests;
- inherently human conflicts between planning and execution.

He asked for the following considerations to be added to the conclusions of the seminar:

- The great structural variety of European coasts is unique in the world and provides elements for fundamental appreciation which have to be taken into account,
- The great speed with which situations evolve accounts for the frequent contrast between planning and execution and means a need for planning which can take account of these very rapid changes, especially in times of crisis.

Referring to responsibilities in the field of coastal management, Mr Fiorelli said that insofar as the objective might be to protect individual coastal sites on a small scale, it was preferable to set up special institutions, such as the coastal conservation authority in France, which purchased stretches

of coastline with a view to managing them and preserving their natural beauty. In his opinion, however, the approach to coastal problems should be as broad as possible, which implied not so much a need for special solutions as an adaptation of normal planning instruments and the availability of solutions which could be implemented rapidly, which would be flexible and progressive and which would take into account the complex relations which existed between land and sea, and between the coasts and the hinterland.

For Sweden any planning system for coastal management should include the planning of water uses.

A number of studies and a research project entitled: "The coast - the evaluation of basic planning factors" have been used to define key parameters relating to the ecological functions of the coast, leading to a proposal for a division of coastal planning responsibilities into three geographical areas, on the basis of practical and not administrative considerations.

Zone I, which would be administered by local authorities, covers public and private waters and includes the coastal waters around the islands and reefs as well as any incoming watercourses, possibly extending to a distance of two nautical miles from the base line when the latter coincides with the land line.

Zone II, extending between Zone I and the limit of territorial waters, is an area essentially devoted to shipping and fishing. It should be covered by a structural plan governing the use of marine resources, administered by county level authorities.

Zone III extends from the limit of territorial waters up to the central line; the interests involved there are either national or international and should be dealt with either by national councils or in the framework of international agreements.

All the participants and organisations represented in Cuxhaven agreed on the need for greater international co-operation in the field of coastal planning.

CHAPTER IV: International co-operation in the field of coastal protection and planning

1. Main stages of international co-operation alongside the 6th CEMAT

Since ecosystems, sea functions and technical, political and economic factors are all interrelated, there is a need for increased international co-operation which extends beyond administrative and functional structures. This is the principle underlying international agreements in the field of sea and coastal protection. In Mr Uthoff's opinion, existing agreements, produced as the result of compromise in competitive situations, constitute an important step in the right direction and should be regularly improved.

One of the first such agreements was the one concluded between the countries bordering the Baltic Sea.

1.1 Baltic Sea Convention

Under the terms of this convention, signed on 22 March 1974, the contracting states undertake to carry out, both individually and jointly, all appropriate measures to prevent pollution and to protect the marine environment in the Baltic Sea area.

The convention, which came into force on 3 May 1980, includes a list of toxic substances which must not enter the sea and lays down measures to control pollution originating from mines or shipping.

The convention established a governing body, the "Helsinki Commission". Meetings of the Commission are held once a year. Its organisation consists of a secretariat, two permanent committees and one permanent expert group. Besides these, several ad hoc working groups have also been established.

The Commission has no power to enforce its decisions on the seven signatory states. The Commission's decisions, which must be reached unanimously, are therefore regarded as recommendations which are incorporated in the national legislation of each of the seven states. The Commission monitors the enforcement of the measures.

According to Mr Grip, the introduction of the following measures in the Baltic countries may be credited to the convention:

- . the use of DDT has been banned in all seven states;
- . the use of PCBs has been strictly limited;
- . a group of new hazardous chemicals, PCTs, has been added to the list of substances which cannot be discharged at sea;
- . discharges from ships have been strictly limited;
- . collection facilities for ships' waste have been established in ports;
- . rules and guidelines for joint action in combatting oil spillages at sea have been established;
- . international rules of pilotage and safe routes for large ships have been established;
- . a position reporting system for ships carrying hazardous cargoes has been established;
- . special treatment plants have been constructed.

A clear decrease in the content of harmful substances has been observed in the Baltic Sea and some of the endangered species are multiplying again.

Among unresolved problems, Mr Grip includes the high content of PCB in Baltic Sea herring and persistent eutrophication.

Besides the work of the 6th CEMAT, which devoted one of its resolutions to "Development prospects in European maritime regions", the conferences and texts which proved of most interest to participants were: the European Coastal Charter, the Fourth European Ministerial Conference on the Environment (Athens 1984), the International Conference for the Protection of the North Sea (Bremen 1984) and the German-Netherlands Danish Governmental talks on the Wadden Sea. Mr Pollak provided an analysis of the results.

1.2 The European Coastal Charter

The European Coastal Charter, prepared by the Conference of Peripheral Maritime Regions of the European Community, is a reference document which proposes co-ordinated action on various European administrative levels to ensure the protection and development of coastal regions by means of a global planning strategy.

The Charter proposes a programme of action for coastal planning and the launching of pilot projects for implementation by the coastal regions. A copy of the Charter as adopted by the European Parliament is given in doc CDAT (85) 29.

1.3 The 6th European Conference of Ministers responsible for Regional Planning

The 6th CEMAT held in Torremolinos on 19-20 May 1983 called for;

- . greater transfrontier co-operation at different administrative and political levels in working out aims and preparing development plans and conservation programmes for coastal regions;
- . a detailed study of the function and role of European ports as part of the preparatory work for a European regional planning strategy;
- . a study of the trends and impact of tourism on European coasts;
- . a comprehensive inventory of pollution in coastal regions;
- . the formulation of objectives for the protection of coastal regions which can be incorporated in a European regional planning strategy.

1.4 4th European Ministerial Conference on the Environment

The theme of this conference, which was held in Athens in 1984 was: "Coastal areas, river banks and lake shores: their planning and management in compatibility with the ecological imbalance".

Referring to the corresponding resolution of the 6th CEMAT, the conference proposes a policy guide outlining fundamental principles for safeguarding coasts and shores and setting out general objectives to be taken into account when preparing development programmes for coastal areas.

Legal problems were the subject of an additional study, appended to the resolutions of the conference, which reaches the conclusion that existing legislation should be strictly enforced and that integrated coastal planning procedures should be established based on systematic data collection and ecological inventories.

1.5 International Conference for the Protection of the North Sea

On 31 October and 1 November 1984, the seven riparian countries of the North Sea met with a representative of the European Community in order to reach agreement on environmental policy for the North Sea.

The Bremen Declaration did not satisfy all expectations. The conference did, however, lay the foundation for improved protection of the North Sea. Some practical results were achieved;

- "black lists" and "grey lists" of harmful substances are to be extended and the discharge of such substances in coastal waters reduced;
- the decision to go ahead with measures in favour of:
 - . reducing radioactive emissions from the nuclear industry;
 - . reducing airborne pollution;
 - . eliminating harmful waste in sewage;
 - . limiting sea pollution by ships in particular by implementing the MARPOL agreements.

It was also decided to improve air surveillance of the North Sea, to expand existing scientific marine environment monitoring and surveillance programmes and to set up a joint international environmental data bank for the North Sea and the North West Atlantic.

The conference failed, however, to decide on the designation of the North Sea as a special protected area, or to arrive at an agreement on suspending the dumping of diluted acids resulting from the production of titanium dioxide. Questions concerning the development and protection of coastal areas were excluded, although to the great satisfaction of the German delegation the Wadden Sea was recognised by all participant states as an area requiring special measures for its protection.

1.6 The "Joint Declaration" on the Protection of the Wadden Sea

After consultations in 1978 and 1980, representatives of the Netherlands, the Federal Republic of Germany and Denmark adopted a joint declaration on the protection of the Wadden Sea on 9 December 1982.

While it confirmed the policy of expanding transfrontier co-operation, the exchange of information and the co-ordination of scientific research projects, the Joint Declaration also contained an undertaking by the states concerned to apply a number of relevant international conventions, such as the RAMSAR Convention on Wetlands (1971), the Bonn Convention on Migratory Species (1979), and the Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979).

2. Critical appraisal of the results of international co-operation

2.1 The point of view of the European Community

Mr Schneider, representing the Commission of the European Community, welcomed the progress achieved with regard to the protection of the Wadden Sea and the North Sea.

At the behest of the European Parliament, the Commission of the European Community has taken a close interest in the protection of the Wadden Sea.

The latter should be seen in a European context, owing on the one hand to the uniqueness and richness of its characteristics and on the other hand to the considerable outside pressures to which it is exposed and which demand a global approach.

In its resolution on the international Wadden Sea region, the European Parliament calls for European solutions to be found to the problems of sea pollution in the area and proposes that the Commission should co-ordinate the work of the three countries by subscribing to the Joint Declaration.

If so, the Commission would make sure that the problem of infrastructures was approached in very general terms on the basis of impact studies comparing planned capacity, the loss of natural resources and local development potential.

The Commission would support the improvement of co-ordination for the creation of national parks, as a means of facilitating the creation of an international park in the Wadden Sea.

The Commission also believes that the United Kingdom should be party to the Joint Declaration, and Mr Schneider proposed that a call should be made in the Cuxhaven conclusions for the protection of the Wadden Sea to be considered in a broader perspective.

With regard to information systems, the Commission has set up a permanent information system on the state of the environment, in which the various aspects of coastal protection are taken into account. The system is designed to supply comparable, operational and harmonised ecological and economic data at a European level which can serve as a basis for alternative development proposals.

The Commission considers lastly that the North Sea Conference was an important step forward, even though it did not fulfil the hopes which had been placed in it. The European Parliament has set up a special committee on the follow-up to the Conference, where alternative solutions can be proposed to reconcile economic and ecological interests.

The idea of setting up an international park in the Wadden Sea was one of the main themes of the general discussion.

2.2 Towards the creation of a Wadden Sea international nature park

The following text was proposed by Professor Lefeuvre for inclusion in the conclusions of the seminar, although as it was not unanimously accepted, only part of it was included in the final text:

"The Wadden Sea is part of Europe's natural heritage. While all the countries should for that reason pursue exceptional protection policies current proposals for the creation of national parks should be considered without delay in the light of a possible merger instituting the first 'European international' nature park.

It is recommended that the countries of the European Community should without delay set up functional administrative and scientific structures capable of harmonising national regulations and of drawing up the boundaries of the future park and plans for its management.

It is also recommended that the future park authorities should bear in mind the need to protect a mosaic of interactive ecological systems. Proposals concerning park boundaries should take more account of functional limits than of administrative requirements.

If the aim of protecting the species and natural areas of the Wadden Sea is to be really achieved, the creation of the European international park should be accompanied by a determination to reduce discharges in the North Sea and to limit the disposal of land waste, and by a willingness to plan the management of wetlands and other areas functionally related to the Wadden Sea.

A European administrative structure would not be concerned with routine management procedures, which could be national or regional.

The Wadden Sea is an exceptional example of a common heritage which should be recognised at European level".

Mr Phedonos proposed adding that a Wadden Sea international nature park could serve as a model for other parks which could be set up in Europe, for instance in the Mediterranean.

Mr Tougaard suggested that non-governmental organisations should be involved in the management of a Wadden Sea international park. The North Sea and Wadden Sea states needed European organisations to support their efforts, considering that as things stood even the exchange of information remained insufficient in the framework of the Joint Declaration.

MM Spanier, von Hinüber, Augst and Menge did not agree with the above proposals, which they thought could create psychological barriers among the public and might jeopardise existing gains.

Mr In't Anker pointed out that owing to differences between national procedures, a certain time was required for national plans to be co-ordinated and harmonised. It was important that agreement should be reached regarding objectives and that information exchanges and consultation procedures should be improved, after which it would be possible to envisage common measures. The approach should be gradual, using simple instruments. There was a real need for a permanent transfrontier secretariat in the Wadden Sea.

After Mrs Langedijk-de Jong had pointed out that the Advisory Council representing Wadden Sea users had never been consulted, MM Wesemüller and Feldt regretted that the only consensus which emerged concerned the desirability of discussing problems, whereas the degradation of the environment was accelerating under the impact of uncontrolled economic progress, in the absence of any international structural policy.

For MM In't Anker and Spanier, the Joint Declaration marked the beginning of a process. A few steps had been taken in consultation with local and regional authorities. Co-operation was difficult, though the path ahead was clearly visible and improvements would be progressive.

The seminar as a whole felt, however, that international co-operation would only bear fruit to the extent that local and regional authorities and the public joined in the efforts of their governments. To meet that objective, it had to be ensured that agreements were clearly formulated, that they were circulated at all decision-making levels and that they became incorporated in national legislations.

CONCLUSIONS

The first seminar of experts on "The development and planning of coastal regions", organised at the initiative of the 6th CEMAT by the Council of Europe's Steering Committee for Regional Planning, took place at Cuxhaven from 7 to 9 May 1985, at the invitation of the authorities of Lower Saxony.

This first seminar served as a forum for environmental conservation and coastal planning authorities to formulate concrete proposals concerning the ecological aspects of spatial development, with reference to the case of the North Sea.

The Wadden Sea constituted the central theme of the seminar owing to the complexity of the problems encountered on that coastline, which is unique in Europe, and to the diversity of conservation instruments adopted by its bordering regions.

Despite substantial differences between the coasts of northwestern Europe and those of the Atlantic or the Mediterranean, the seminar was able to identify relations linking the northernmost and southernmost regions of Europe.

The situation of coasts bordering on seas which cannot be divided obliges the coastal regions concerned to be interdependent and makes the role of international and transfrontier co-operation particularly important.

It clearly appears from international texts and agreements concerning the protection of coastal regions that despite the undoubted progress which has been achieved in this field, there is a need to intensify international co-operation.

The joint action taken for the protection of the Baltic Sea and the North Sea and the Joint Declaration between the Netherlands, the Federal Republic of Germany and Denmark for the protection of the Wadden Sea do nevertheless constitute an important step forward, which could be used as a reference framework by other countries.

Although at the present stage the Joint Declaration does no more than institute consultation procedures between three countries, it is thought that if this co-operation is strengthened and extended to other countries, this might lead to the definition of a common strategy and to the creation of an international nature park in the Wadden Sea.

On the basis of shared experience, the Cuxhaven Seminar showed that the conservation of natural resources can be compatible with a coastal development strategy. The recognition of an environmental dimension as part of the definition of integrated land-sea planning does however require an unusual degree of co-operation between authorities at national and international level.

In this respect, the Council of Europe and the European Communities have a prime role to play, the next stage of which could be the implementation of a European inventory of coastal areas.

This inventory could serve as a basis for a definition of common tools for lasting development, where public participation could democratically guarantee an improvement in the quality of life.

ANNEXE I/APPENDIX I

LISTE DES PARTICIPANTS/LIST OF PARTICIPANTS

CHAIRMAN OF THE SEMINAR

Mr Hanns J. BUCHHOLZ - Professor - Direktor des Geographischen Instituts der Universität Hannover - Schneiderberg 50 - D - 3000 HANNOVER 1

AUSTRIA

Mr Dr. Gerd ZAWORKA - 181 Kärnten - A - 9530 BAD BLEIBERG

BELGIQUE/BELGIUM

M. I.B.F. KORMOSS - Professeur - Collège d'Europe - Dijver 11 - B - 8000 BRUGES

M. Jos LORENT - Bertemstraat 5 - B - 3030 HERVELEE

CYPRUS

Mr Georges J. PHEDONOS - Ministry of the Interior - CY - NICOSIA

DENMARK

Mr SvendTOUGAARD - Fishery Museum - Tarphagerej - DK - 6710 ESBJERG

FINLAND

Mr Risto KARKKAINEN - Civil Engineer - Ministry of the Environment - P.O.B. 306 - SF - 00531 HELSINKI

FRANCE

Mme Catherine BERSANI - Directeur Adjoint du Conservatoire de l'Espace Littoral - 78, avenue Marceau - F - 75008 PARIS

Mme Maguelonne DEJEANT - Jardin aux Fontaines, A 2. - 140, rue du Pioch de Boutonnet - 34100 MONTPELLIER

M. LEFEUVRE - Professeur - La Clothière - F - 35310 THORIGNE FOUILLARD

FEDERAL REPUBLIC OF GERMANY

Mr Hanz Joachim AUGST - Ministerium für Ernährg, Landwirtschaft und Forsten - Düsternbrooker Weg 104 - D - 2300 KIEL

Mr Hermann BOEKE - Leitender Regierungsdirektor - Bezirksregierung Lüneburg Postfach 25 20 - D - 2120 LUNEBURG

Mr Peter DOST - Deutscher Bund für Vogelschutz/Niedersachsen - Libellenweg 7 - D - 2190 CUXHAVEN 13

M. Hans-Heinrich EILERS - Oberstadtdirektor, Rathaus - 2190 CUXHAVEN
(Member of the Committee on Regional Problems and Regional Planning -CLRAE-)

Mr Walter FELDT - Bund für Umwelt und Naturschutz Deutschland/Niedersachsen - Wittekindstr. 16 - D - 3000 HANNOVER 1

Mr Hans-Peter GORZEL - Bundesminister für Raumordnung, Bauwesen und Städtebau - Postfach 20 50 01 - D - 5300 BONN 2

Mr Thomas HETZ - Studienleiter - Rudolf von Benningsen Stiftung - D - HANNOVER

Mr von NINUBER - Leitender Ministerialrat - Niedersächsisches Ministerium des Innern - Lavesallee 6 - D - 3000 HANNOVER 1

Mr Udo JAKOB - Stadt Cuxhaven - Grüner Weg 2 - D - 2190 CUXHAVEN

Mr Heinz KLUG - Professor - Direktor des Geographischen Instituts der Universität Kiel - Olshäuser Str. 40 - D - 2300 KIEL

Mr Dietrich LUDERWALDT - Leitender Baudirektor - Nieders. Landesverwaltungsamt - Scharnhorststr. 1 - D - 3000 HANNOVER 1

Mr Viktor Freiherr von MALCHUS - Direktor des Instituts für Landes- und Stadtentwicklungsforschung des Landes Nordrhein-Westfalen - Postfach 12 11 - D - 4600 DORTMUND

Mr MENCE - Landwirtschafts-Ministerium - D - HANNOVER

Mr Antonius MENKE - Staatskanzlei - Schleswig-Holstein - Düsterbrooker Weg 70-90 - D - 2300 KIEL 1

Mr Andreas MIETH, Dipl.-Biol. - Zoological Inst. Univ. Kiel - D - KIEL

Mr PAPAY - Regierungsdirektor - Bezirksregierung Lüneburg - Postfach 25 20 - D - 2120 LÜNEBURG

Mr Jürgen PFUTZE - Landesplanungsamtsrat - Niedersächsisches Ministerium des Innern - Lavesallee 6 - D - 3000 HANNOVER

Mr Eckhard POLLAK - Regierungsdirektor - Niedersächsisches Ministerium des Innern - Lavesallee 6 - D - 3000 HANNOVER 1

Mrs Brigitte RUPPENTHAL - Regierungsdirektorin - Bezirksregierung Weser-Ems - Theodor-Tantzen-Platz 8 - D - 2900 OLDENBURG

Mr Michael SCHULZ-TRIEGLAFF - Ministerialrat - Bundesministerium für Ernährung, Bauwesen und Städtebau - Postfach 20 50 01 - D - 5300 BONN 2

Mr Heinrich SPANIER - Diplom-Ingenieur - Bundesministerium für Ernährung, Landwirtschaft und Forsten - Rochusstr. 1 - D - 5300 BONN

Mr Gerg TUROWSKI - Baudirektor - Senator für das Bauwesen Bremen - Ansgaritorstr. 2 - D - 2800 BREMEN 1

Mr Dieter UTHOFF - Professor - Direktor des Geographischen Instituts der Universität Mainz - Saarstr. 21 - D - 6500 MAINZ

Mr Udo WARNCKE - Referent für Stadtentwicklung - Stadt Cuxhaven - Grüner Weg 42 - D - 2190 CUXHAVEN

Mr Holger WESEMÜLLER - WWF Ökologiestation - Am Gütpohl 9 - D - 2800 BREMEN 70

ITALY

M. Franco FIORELLI - Professeur - Via Marcello Prestinari 23 - I - 00195 ROME

Mme Gisele PENNA - Segretario regionale per il territorio - Regione del Veneto - Giunta regionale - I - VENEZIA

M. Franco POSOCCO - Segretario regionale per il territorio - Regione del Veneto - Giunta regionale - I - VENEZIA

NETHERLANDS

Mr Joris AL - Rijksplanologische Dienst - Ministrie van Volkshuisevesting, Ruimtelijke Ordening en Milieubeheer - Willem Witsenplein 6 - NL - 2596 BK 's-GRAVENHAGE

Mr Machiel in't ANKER - Rijksplanologische Dienst - Ministrie van Volkshuisevesting, Ruimtelijke Ordening en Milieubeheer - Willem Witsenplein 6 - NL - 2596 BK 's-GRAVENHAGE

Mr H.F.M. GERRITSE - Rijksplanologische Dienst - Ministrie van Volkshuisevesting, Ruimtelijke Ordening en Milieubeheer - Willem Witsenplein 6 - NL - 2596 BK 's-GRAVENHAGE

Mr G.F.W. HERNGREEN - Ministry of Agriculture and Fisheries - Keizergracht 179 - NL - 1016 DR AMSTERDAM

Mrs S. LANGEDIJK-DE JONG - Voorzitter van de Voorlopige Waddenadviesraad - Postbus 392 - NL - 8901 BD LEEUWARDEN

Mr Ch. LEEUWE - Chairman of the Council of Dutch Waddensea municipalities -
Postbus 20 000 - NL - 9930 DELFZIJL

Mr J.C. SCHWEIG - Civil engineer - Chief directorate of public works -
Ministry of Transport and Public Works - Koningskade 4 - NL - 2596 AA THE HAGUE

Mr T. SLEIFER - Secretaris van de Voorlopige Waddenadviesraad - Postbus 392 -
NL - 8901 BD LEEUWARDEN

NORWAY

Mr Björn BERTHELSEN - Ministry of Environment - P.O. Box 8013 - N - OSLO DEPT. 1

Mrs Astrid EVENSEN - Ministry of Environment - P.O. Box 8013 - N - OSLO DEPT. 1

SPAIN

M. Florencio ZOIDO NARANJO - Director General de Urbanismo de la Consejeria
de Politica Territorial - Junta de Andalucia - Plaza de la Contratacion -
E - SEVILLA

SWEDEN

Mr Kjell GRIP - Swedish Marine Resource Commission - Box 295 - S - 401 24 GOTEBOG

Mr Kjell SVENSSON - Head of Department - Ministry of Housing and Physical Planning -
S - STOCKHOLM

UNITED KINGDOM

Mr Christopher BLAGDEN - Department of the Environment - Directorate of
Rural Affairs - Toolgate House - Houlton Street - GB - BRISTOL BS2 9DJ

PARLIAMENTARY ASSEMBLY OF THE COUNCIL OF EUROPE

Mr John CORRIE - Committee on Regional Planning and Local Authorities -
House of Commons - GB - LONDON SW1

COMMISSION OF THE EUROPEAN COMMUNITIES

M. Gunter SCHNEIDER - Chef de Division Adjoint - DGXI - Direction de
l'Environnement, de la Protection des Consommateurs et de la Sécurité
Nucléaire - Commission des Communautés Européennes - 10, rue Guimard -
B - 1040 BRUXELLES

PRESS

M. Dominique BARRÉ - Ministère de l'Urbanisme, du Logement et des Transports -
Service Technique de l'Urbanisme - 64, rue de la Fédération - F - 75015 PARIS

Mr Carsten HOLM - Holsteiner Tageblatt - D - PINNEBERG

Mrs Sabine MOCH - NNZ - D - OLDENBURG

Mr Ludger POOTH - NDR RADIO

M. Dominique VADEL - Journaliste - FR 3 - 28 Cours Albert I - F - 75008 PARIS

SECRETARIAT OF THE COUNCIL OF EUROPE

M. Günter MUDRICH - Secrétaire du Comité des Hauts Fonctionnaires de la CEMAT -
Section de l'Aménagement du Territoire de la Direction de l'Environnement et
des Pouvoirs Locaux - B.P. 431 R6 - 67006 STRASBOURG CEDEX

Mme Evelyne DENNY - 42, rue Geiler - 67000 STRASBOURG
M. Stilianos PETTAS - 7a, rue Turenne - 67000 STRASBOURG

A P P E N D I X II

LIST OF DOCUMENTS

- Report of Mrs S. LANGEDIJK-DE JONG (Netherlands) - "The possibility and need to protect coastal regions in general with special attention to the Wadden Sea" - (summary of report : doc. CDAT (85) 15), full report : doc. CDAT (85) 32)
- Report of Mr E. Eckhard POLLAK (FRG) - "Conclusions of specialist conferences since the 6th CEMAT, Torremolinos 1983" (doc. CDAT (85) 16)
- Report of Mr POSOCCO (Italy) - French only : "Considérations sur la protection des côtes de l'Adriatique Nord et en particulier sur les politiques d'aménagement du territoire et de l'environnement de la Région de Vénétie"
- Report of Mr Georges J. PHEDONOS (Cyprus) - "The development and planning of the southern coast, between and including the towns of Larnaca and Limassol, Cyprus" (doc. CDAT (85) 13)
- Report of Mr Kjell GRIP (Sweden) - "Initiatives taken for the protection of the Baltic Sea coasts" (doc. CDAT (85) 19)
- Report of Mr Florencio ZOIDO (Spain) - "The Bay of Cadiz : regional planning and co-ordination of local management in a strongly urbanised region" (doc. CDAT (85) 20)
- Report of Mr Holger WESEMULLER (FRG) - "The Wadden Sea, its importance, the dangers facing it and the need for protection" (doc. CDAT (85) 21)
- Report of Mr Diedrich LUDERWALDT (FRG) - "Integrated concepts for the protection of the Wadden Sea" (doc. CDAT (85) 22)
- Report of Mr Machiel IN'T ANKER (Netherlands) - "Dutch policies concerning the management of the Wadden Sea" (summary of report : doc. CDAT (85) 23, full report : doc. CDAT (85) 33)
- Report of Mr Svend TOUGAARD (Denmark) - "The Danish Wadden Sea - development problems and protection" (doc. CDAT (85) 24)
- Report of Mr Christopher BLAGDEN (United Kingdom) - "United Kingdom : Environmental protection and the East Anglia Coast" (doc. CDAT (85) 25)
- "The role of the Council of Europe in coastal affairs" - Secretariat memorandum prepared by the Directorate of Environment and Local Authorities (doc. CDAT (85) 26)
- Declaration of the international Conference on the protection of the North Sea - conclusions of the Conference, Bremen, 31 October and 1st November 1984 (doc. CDAT (85) 27)
- "La notion juridique de zone côtière : application au cadre méditerranéen" by Mrs Maguelonne DEJEANT (doc. CDAT (85) 28, French only)
- The European coastal Charter (Resolution adopted by the European Parliament) - (doc. CDAT (85) 29)
- "Some thoughts on the planning of coastal regions" - Secretariat memorandum prepared by the Directorate of Environment and Local Authorities (doc. CDAT (85) 30)
- "Marine pollution" - Contribution of the Council of European Municipalities, Working Group on marine pollution (doc. CDAT (85) 31)